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The military health services system is under increasing pressure to justify its existence, redefine its role, and control costs. TRICARE evolved in 1993 as a managed care program to ensure a high-quality, consistent health benefit, improve access, and contain costs. Mental health and substance abuse (MH/SA) services offer a unique challenge for management under TRICARE in Region 8. The purposes of this project were to determine utilization trends and to evaluate the feasibility of using key management indicators to estimate the annual MH/SA cost per CHAMPUS-eligible beneficiary. Utilization and cost data for fiscal years 1993 and 1994 were analyzed for CHAMPUS MH/SA services provided in 14 catchment and 12 non-catchment areas in Region 8.

The results provide a baseline for MH/SA utilization prior to TRICARE. Although beneficiaries aged 0-17 represented only 36 percent of the population, they accounted for more than 64 percent of MH/SA costs. The top five MH/SA diagnoses accounted for almost 90 percent of utilization and government costs. Furthermore, key management indicators are reliable predictors of the mental health cost per beneficiary. These indicators will become valuable parameters to gauge the performances of both the direct care system and the TRICARE contractor and to benchmark against industry standards.

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**GRADUATE PROGRAM IN HEALTH CARE ADMINISTRATION**

***MENTAL HEALTH CARE IN REGION 8:***  
***PREPARING FOR TRICARE***

**A GRADUATE MANAGEMENT PROJECT**  
**PRESENTED TO THE FACULTY OF THE**  
**U.S. ARMY-BAYLOR UNIVERSITY GRADUATE PROGRAM**  
**IN HEALTH CARE ADMINISTRATION**

**BY**  
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**JUNE 1996**

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## **ABSTRACT**

The military health services system is under increasing pressure to justify its existence, redefine its role, and control costs. TRICARE evolved in 1993 as a managed care program to ensure a high-quality, consistent health benefit, preserve provider choice for beneficiaries, improve access, and contain costs. Mental health and substance abuse (MH/SA) services offer a unique challenge for management under TRICARE in Region 8 and are the focus of this project.

The purposes of this project were to determine utilization trends and to evaluate the feasibility of using key management indicators to estimate the annual MH/SA cost per CHAMPUS eligible beneficiary. Utilization and cost data for fiscal years 1993 and 1994 were analyzed for CHAMPUS MH/SA services provided in 14 catchment and 12 non-catchment areas within Region 8.

The results of this project provide a baseline for MH/SA utilization by the beneficiary population before the initiation of TRICARE. MH/SA utilization and costs are largely concentrated in the child and adolescent population. Although CHAMPUS eligible beneficiaries aged 0-17 represented only 36 percent of the population, they accounted for more than 64 percent of the MH/SA costs of the sample population. The top five MH/SA diagnoses accounted for almost 90 percent of utilization and costs.

Furthermore, this project supports the use of key management indicators to estimate the mental health cost per beneficiary. These indicators will become valuable parameters to gage the performances of both the direct care system and the TRICARE managed care support contractor and to benchmark against industry standards.

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## **INTRODUCTION**

### **Conditions That Prompted the Project**

The military health services system (MHSS) is under increasing pressure to justify its existence, redefine its role, and control costs. Elements within the Department of Defense (DoD), United States General Accounting Office (USGAO) (Baine GAO-HEHS-95-104 1995), and Congressional Budget Office (CBO) question whether the military should provide peacetime health care to anyone other than active duty service members. The CBO (1995) examined restructuring the military health care system, reducing medical requirements to meet the wartime mission. Detailed evaluation of the MHSS by the DoD was directed by Congress in Section 733 of the National Defense Authorization Act for Fiscal Years (FYs) 1992 and 1993. The FY 1995 Defense Authorization Bill authorized further study with the creation of the independent government Commission on Roles and Missions of the Armed Forces. In response, the Pentagon was scheduled to report to Congress in the spring of 1996 on options to improve utilization management in military hospitals and move routine peacetime care for military beneficiaries to managed care systems in the private sector (Baine GAO-HEHS-95-104 1995).

The MHSS, one of the nation's largest healthcare systems, offers benefits to approximately 8.3 million beneficiaries. This system, whose primary mission is to support 1.7 million active duty service personnel, costs the DoD more than \$15 billion annually. The GAO estimates that only three-quarters of the eligible beneficiaries regularly use the MHSS because they either have

difficulty accessing the system or have other options, such as private insurance (Baine GAO-HEHS-95-104 1995; Baine GAO-T-HEHS-95-107 1995; Murphy 1995).

The MHSS consists of the direct care system and the Civilian Health and Medical Plan of the Uniformed Services (CHAMPUS). The direct care system consists of 127 military hospitals and medical centers and 500 clinics worldwide. CHAMPUS, a federal medical benefit entitlement program operated by DoD, requires beneficiaries to meet annual deductible limits and share costs for treatment received from private-sector health care providers. CHAMPUS is available to family members of active duty personnel, retirees and their family members, and survivors under the age of sixty-five. Military facilities provide approximately three-fourths of all medical care, with CHAMPUS providing the other one-fourth (OCHAMPUS 1996; Baine GAO-HEHS-95-104 1995; Baine GAO/T-HEHS-95-117 1995; CHAMPUS Handbook 1994).

In FY 1995 the estimated cost for the MHSS was \$15.2 billion, of which \$11.6 billion was required to support the direct care system and \$3.6 billion to support CHAMPUS. The 8.3 million beneficiary population can be subdivided into the following categories: 21 percent active duty service members; 29 percent active duty family members; 36 percent retirees, their family members, and survivors under the age of 65; and 14 percent retirees, their family members, and survivors 65 and over (Baine GAO-HEHS-95-104, 1995; Baine GAO/T-HEHS-95-117 1995).

The MHSS has been plagued with persistent concerns about rapidly escalating costs, uneven access to care, and dissimilar benefit and cost-sharing packages for beneficiaries. Costs for the MHSS increased by 225 percent from 1980 to 1990. What was particularly disconcerting to military leaders was that the medical portion of the defense budget doubled from 3 percent to 6 percent of the total DoD budget. During this period, the number of CHAMPUS users grew by

162 percent and CHAMPUS costs increased by 350 percent. The average cost of CHAMPUS inpatient admissions rose from \$2388 in fiscal year (FY) 1981 to \$5395 in FY 1990 and the average outpatient visit doubled in cost (Baine GAO-HEHS-95-104 1995).

CHAMPUS mental health and substance abuse (MH/SA) costs increased 20 percent per year between 1980 and 1989. Between 1985 and 1989, government costs increased from \$272 million to \$613 million, though the number of eligible beneficiaries remained relatively constant at approximately six million. Inpatient expenditures, the largest component of CHAMPUS mental health costs, increased from approximately \$200 million in 1985 to \$500 million in 1989. In FY 1989 MH/SA services provided to beneficiaries aged 19 and under accounted for approximately three-quarters of total inpatient bed days and 60 percent of all CHAMPUS mental health costs. The fastest growing component of inpatient MH/SA costs was for residential treatment center (RTC) services, which increased by 240 percent from \$38 million in 1985 to \$130 million in 1989. Due to DoD initiatives in utilization management, the institution of controls over payments to psychiatric facilities, and improved standards for RTCs, CHAMPUS mental health benefits leveled off in FYs 1990 and 1991. In 1991 CHAMPUS MH/SA costs totaled \$630 million. Inpatient care represented 79 percent of that total or \$500 million, of which \$305 million was expended for the mental health treatment of beneficiaries under the age of nineteen (Baine GAO/T-HRD-92-27 1992; Baine GAO/T-HRD-91-18 1991; Baine GAO/HRD-93-34 1993).

The rapid growth in CHAMPUS mental health costs increased scrutiny of psychiatric facilities and providers. As a result of their investigations, the General Accounting Office concluded that CHAMPUS mental health programs were especially vulnerable to fraud and abuse. The involuntary hospitalization of a CHAMPUS beneficiary in Texas in April 1991 triggered

investigations and concerns about psychiatric hospital practices in that state. Texas senate hearings later that year exposed multiple potentially fraudulent and abusive psychiatric treatment and billing practices. The Texas cases generated an increase in activity by state and federal agencies, including the Department of Health and Human Services' Inspector General, the Department of Defense's Criminal Investigative Service, and the Federal Bureau of Investigation. These agencies reviewed CHAMPUS claims by private psychiatric hospitals and providers, focusing on health care fraud and abuse. As a result of one investigation, a psychiatric hospital chain repaid the federal government \$324.8 million in 1994, \$54 million of which was earmarked for DoD. As a result of their inquiries, the GAO concluded that CHAMPUS fiscal intermediaries had not established adequate systems to ensure that payments were limited to authorized psychiatric stays or prevented duplicate payments. In fact, as many as 50 percent of the claims had been overpaid. Furthermore the GAO recommended that DoD focus more attention on the high rate of potentially inappropriate hospital admissions and excessive lengths of stay identified by medical record review, health and safety problems identified by RTC inspections, and high reimbursement rates paid to psychiatric facilities (Baine GAO/HRD-93-92 1993; Baine GAO/HRD-93-19R 1993; Baine GAO/HRD-93-34 1993).

With congressional authority, DoD implemented a number of managed care demonstration projects to control health care costs, insure quality, and improve access. The establishment of provider networks, negotiation of provider discounts, utilization review and individual case management, and substitution of less intensive outpatient and partial-hospitalization services for inpatient treatment were common features of these programs. The Contracted Provider Arrangement Project in the Tidewater, Virginia, beginning in FY 1987, was one of DoD's first

attempts to use managed care to provide mental health services. This project achieved savings by shifting utilization from inpatient services to less expensive partial hospitalization and outpatient services and by reducing provider reimbursement rates. However, the GAO concluded that DoD's quality assurance plan was insufficient because it was not comprehensive and did not aggressively pursue quality of care issues (Baine GAO/HRD-93-53 1993).

Gateway to Care was a U.S. Army Health Services Command directive and test project implemented in 1991 at eleven Army hospitals. CHAMPUS funds that had normally been spent in the hospital's catchment area were given to the local commander to set up managed care support contracts or preferred provider networks (Armstrong and Took 1993).

The CHAMPUS Reform Initiative (CRI) program was the precursor to TRICARE. Under the CRI, DoD arranged regional, at-risk contracts with civilian providers to supplement the care provided to CHAMPUS eligible beneficiaries in military hospitals and clinics. Beneficiaries were offered a choice among a health maintenance organization program (HMO), a preferred provider organization (PPO), or standard CHAMPUS (Baine GAO/HEHS-94-100, 1994). As a result of these demonstration projects, TRICARE evolved in 1993 as a managed care program to ensure a high-quality, consistent health benefit, preserve provider choice for beneficiaries, improve access to health care, and contain costs. The TRICARE Program will meet these objectives by contracting for managed care support contracts to supplement care delivered by Uniformed Services Medical Treatment Facilities (MTFs) (Baine GAO/HEHS-95-104 1995; Baine GAO/T-HEHS-95-117 1995; Joseph 1995).

TRICARE, a triple option health care delivery model, has significantly changed the way DoD delivers health care to beneficiaries. Similar to the CRI program, it offers beneficiaries a

choice among an HMO (TRICARE Prime), a PPO (TRICARE Extra), and a standard indemnity health insurance option (TRICARE Standard). To implement and administer the TRICARE program, DOD has reorganized into 12 joint-service regions. The Lead Agent has been created in each region with broad responsibilities to plan, coordinate, and monitor the medical care delivered by MTFs and contract providers throughout the region. The initial responsibility of the Lead Agent's operational staff, the Regional Health Services Operations (RHSO) office, lies in developing an integrated plan for delivering health care to beneficiaries in the region. This plan must discuss the extent to which MTFs provide primary care, how the enrollment process for beneficiaries will be established, and the capacity of the military facilities to implement programs to control and monitor utilization of direct care system resources (Baine GAO-HEHS-95-104 1995; Baine GAO/T-HEHS-95-117 1995).

Contracted civilian health care providers have been maintained from the CRI to supplement the level and type of care provided by the MHSS on a regional basis. Seven managed care support contracts (MCSCs) will be awarded for the twelve TRICARE regions. The MCSCs, like traditional CHAMPUS, are intended to supplement, not replace or duplicate, the direct care system. DOD anticipates that TRICARE will be implemented nationwide by 1997. The MCSCs will be awarded for a five-year period, consisting of one contracted year plus four option years. These contracts are expected to cost \$17 billion over the five-year contract period (Baine GAO-HEHS-95-104 1995; Baine GAO/T-HEHS-95-117 1995).

The Region 8 Lead Agent staff is responsible for coordinating health care services for more than 700,000 beneficiaries in the states of Colorado, Iowa, Kansas, Minnesota, Missouri, Montana, Nebraska, North Dakota, South Dakota, Utah, Wyoming, and Idaho. The Lead Agent

is working closely with the seventeen commanders of the military facilities in the region to develop a plan to deliver health care to all beneficiaries. These seventeen commanders form the board of directors for health care in the region (Baine GAO-HEHS-95-104 1995; Baine GAO/T-HEHS-95-117 1995; Region 8 TRICARE Conference 1995).

Mental health and substance abuse services offer a unique challenge for management under TRICARE because of the subjective and variable nature of mental health disorders, variability in provider practice patterns and assessment of the quality and appropriateness of care, and the lack of generally accepted mental health practice guidelines, criteria, and outcome standards (Baine GAO/T-HRD-92-27 1992). The management of the mental health benefit as the MHSS transitions to the TRICARE managed care support contract in Region 8 will be the focus of this project.

If the Lead Agent in Region 8 is to develop an integrated network of mental health services with the contractor, several key questions must be answered. First, what are the historical patterns and trends for MH/SA utilization in Region 8? Secondly, can key management indicators, such as dispositions/1000 beneficiaries, outpatient visits/1000, bed days/1000, cost per outpatient visit, or cost per inpatient disposition be used to estimate annual MH/SA costs per beneficiary? Furthermore, do MH/SA costs vary by age category of beneficiary, diagnosis, fiscal year, or area within the region in which treatment is received? Ultimately, the Lead Agent, the Board of Directors, and the RHSO office must determine the optimal way in which to build an integrated network of mental health and substance abuse services in Region 8 utilizing direct care and contractor resources.

## Literature Review

Mental health and substance abuse benefits account for an average of between 8 to 15 percent of total health care expenditures in the United States (Mechanic, Schlesinger, and McAlpine 1995; Mirin and Sederer 1994; German 1994). Representative of the increase in MH/SA treatment is the growth in the number of admissions to psychiatric hospitals for patients under the age of eighteen from 7,668 in 1971 to 99,240 in 1985 (Schuster 1993). Factors contributing to the escalation in mental health care expenditures include the proliferation of private, freestanding, for-profit psychiatric hospitals targeting the chemical dependency and adolescent market, and the substitution of mental health treatment facilities for failures in schools, families, and communities (Berlant, Trabin, and Anderson 1994).

Although the deinstitutionalization and growing acceptance by consumers of the legitimacy of psychiatric care have accelerated the demand for mental health services, the National Institute of Mental Health (NIMH) estimates that only 20 percent of those who need help receive it. The NIMH calculates that some form of mental disorder affects 22 percent of the adult population in a given year (Covall 1995). Levin (1992) surveyed the seventeen health maintenance organizations in The HMO Group in 1990 and concluded that 5 percent of the 2.2 million enrollees received mental health services each year. A 1993 survey by American Managed Behavioral Health Association (AMBHA) of health plans covering forty-eight million enrollees disclosed a utilization rate of 5.3 percent for psychiatric and chemical dependency services (Marques et al. 1994). Levin, Glasser, and Jaffee (1988) surveyed MH/SA utilization in 304 HMOs in 1986 and concluded that inpatient utilization averaged 36.9 bed days per 1000 enrollees



and the average length of stay (ALOS) was 11.61 days per disposition. Outpatient utilization averaged 280 visits/1000 enrollees in the same survey.

Psychiatric and substance abuse services have been identified by insurers and DOD as a major contributor to skyrocketing health care costs. With seventy percent of mental health dollars in the United States spent on inpatient care, this setting has been the focus of utilization management (UM) efforts (German 1994). Levin (1992) reported that HMO inpatient costs in 1990 were \$4586 per episode of MH/SA treatment and \$64.56 per outpatient visit. The American Managed Behavioral Health Care Association in Washington estimated that the average cost per employee for mental health and substance abuse coverage in 1993 was about \$87 per person under a managed care model (Taylor 1994). In comparing the costs of MH/SA services under private mental health insurance plans similar to the CHAMPUS mental health benefit, Frank, McGuire, and Newhouse (1995) reported that the Health Care Financing Administration (HCFA) estimated costs at \$141 per person. The American Academy of Actuaries (AAA) calculated that costs ranged from \$165 to \$185 per person per year.

Rapid increases in costs have resulted in a variety of attempts to manage MH/SA benefits, including UM and carve outs (Fuller 1994). Anderson and Berlant (1995) categorized utilization management in specialized MH/SA programs into two general classifications: utilization review (UR) and case management. Specialized UR consists of preadmission certification of the medical necessity of inpatient MH/SA admissions and concurrent review of inpatient and residential cases. Comprehensive case management entails the following functions: promoting correct diagnosis and effective treatment in the most appropriate setting, promoting efficient use of resources,

preventing recidivism, monitoring practice patterns and utilization trends, and containing substandard care.

Hersch (1994) reported the results of a national utilization management program covering approximately 3.4 million enrollees from 1989 through June 1993. While only 6 percent of all hospitalizations were for a primary psychiatric or substance abuse diagnosis, more than 44 percent of the program savings could be accounted for by concurrent mental health utilization management. The ALOS for acute hospitalization of mental health patients in the second quarter of 1993 (8.89 days) was 46 percent of the stay in 1989 (19.29). Ironically, despite the drop in LOS, there was no significant decrease in the rate of hospitalization. Overall, 4 percent of all hospitalizations were for psychiatric conditions and 2 percent were for substance abuse problems. The three most frequent international classification of disease MH/SA diagnoses for hospitalization were for major depression, alcohol dependence, and major depression, recurrent.

Health Management Strategies International, Incorporated (HMSI) of Alexandria, Virginia has conducted the CHAMPUS national mental health utilization review program since January 1, 1990 (CHAMP-MPH Provider 1995). HMSI, which is certified by the Utilization Review Accreditation Commission, provides utilization review for MH/SA services for all CHAMPUS beneficiaries, excluding those who live in or receive care in a TRICARE region or other area covered by a managed care demonstration project. HMSI telephonically reviews the medical necessity for treatment if mental health care requires more than five psychotherapy sessions a week in the hospital, more than two psychotherapy sessions a week as an outpatient, or more than twenty-three outpatient psychotherapy sessions in a fiscal year. Inpatient treatment, which requires preadmission and continuing stay review, has annual limits of thirty days for patients aged

nineteen and older, forty-five days for patients under the age of nineteen, and 150 days for inpatient care in residential treatment centers. (CHAMPUS Handbook 1994). A distinct drawback of the present telephonic UR program conducted by HMSI is that it does not provide on-site case managers who can monitor practice patterns or act as advocates on behalf of CHAMPUS beneficiaries.

As the seven TRICARE MCSCs contracts are implemented, responsibility for mental health care utilization review will be transferred to the contractor. TRICARE uniform mental health benefits will maintain the same day limits for hospitalization and residential treatment centers, but will implement a primary care manager (PCM) for beneficiaries enrolled in Prime. Appendix A describes TRICARE MH/SA benefits in more detail (Federal Register 1995).

In FY 1993 the total government cost in Region 8 for CHAMPUS inpatient and outpatient medical treatment was \$224 million, of which MH/SA care consumed \$38.6 million or 17 percent of the total. The total government cost for Region 8 CHAMPUS health care expenditures decreased to \$221 million in FY 1994, of which \$30.6 million or 14 percent was expended for mental health and substance abuse services. Inpatient expenditures declined from 71 percent of total CHAMPUS MH/SA cost in FY 1993 to 66 percent in FY 1994 (CHAMPUS Medical Information System 1995).

Several authors have reported on management strategies to contain CHAMPUS mental health costs at individual Army medical activities. Armstrong and Took (1993) reported on the results of a Gateway to Care initiative at General Leonard Wood Army Community Hospital (GLWACH) at Fort Leonard Wood, Missouri, to contain and recapture CHAMPUS MH/SA costs. They focused on integrating mental health services (Psychiatry, Social Work, Alcohol and

Drug Program, and Community Mental Health) and increasing the size and scope of outpatient resources rather than developing inpatient capacity. GLWACH achieved a 50 percent reduction in CHAMPUS mental health costs from FY 1990 to FY 1992, primarily by reducing inpatient admissions. Carter and Van Vleet (1995) described the results of a Gateway to Care case management program initiated in 1991 to contain inpatient psychiatric costs at Bayne Jones Army Community Hospital (BJACH) at Fort Polk, Louisiana. They reported that intensive case management reduced admissions by 67 percent and occupied bed days by 74 percent.

Anderson and Berlant (1995) and Theis (1994) recommend the use of key management indicators to track utilization and evaluate capitation rates set for MH/SA treatment. Among these indicators are outpatient visits and inpatient dispositions per 1000 beneficiaries, inpatient bed days per 1000 beneficiaries, ALOS, average cost per bed day, average cost per inpatient disposition, and average cost per outpatient visit.

### **Purpose**

The purposes of this study are to determine the historical patterns and trends for MH/SA utilization in Region 8 and the feasibility of using key management indicators to estimate average MH/SA costs per beneficiary. An additional objective is to ascertain if the MH/SA cost per CHAMPUS eligible beneficiary varies with the age category of the patient, diagnosis, fiscal year, or area in which treatment is received.

## **METHODS AND PROCEDURES**

### **Sample and Data**

Data sources for this retrospective study included a variety of centralized cost, workload, and patient accounting systems operated by the MHSS. The Resource Analysis and Planning System (RAPS 1995) contributed projections of the beneficiary population. The Tri-Service CHAMPUS Statistical Database Medical Analysis Support System (MASS 1995) provided catchment area (CA) and non-catchment area (NCA) outpatient data by CHAMPUS assigned MH/SA current procedural terminology, 4th edition (CPT-4) codes. The Retrospective Case Mix Analysis System (RCMAS 1995) furnished inpatient and RTC data by CHAMPUS assigned MH/SA diagnostic related groups (DRGs). Appendices B and C list the descriptions of CPT-4 codes and DRGs, respectively. In this paper, the term inpatient care refers to the hospitalization of beneficiaries for mental health and substance abuse services in short-term hospitals other than residential treatment centers. RTC services refer to MH/SA services provided in specialized long-term psychiatric treatment facilities. There are currently 10 CHAMPUS approved RTCs in the 12 states in Region 8, none of which provides services to patients over the age of 18 (Katsouranis 1995).

The utilization and cost data for FYs 1993 and 1994 were collected for CHAMPUS MH/SA outpatient, inpatient, and RTC services provided in 14 CAs and 12 NCAs within Region 8. The data were stratified into three mutually exclusive, categorically exhaustive age categories or groups: CHAMPUS eligible patients aged 0-17, CHAMPUS eligible patients between the ages of 18 and 34, and CHAMPUS eligible patients between the ages of 35 and 64. The categorization

of eligible beneficiaries by age category is based on CHAMPUS eligibility requirements, the benefit structure for MH/SA services, and past utilization patterns reported in the literature. The data of each age category for the catchment and non-catchment areas for each year were treated as separate cases, yielding a total of 156 observations. This methodology is consistent with other studies involving data from multiple years (Farley and Hogan 1990; Hadley and Swartz 1989; Brooke, Hudak, and Finstuen 1994).

Patient confidentiality was protected because the data did not identify individuals by name or social security number. The Institutional Review Committee of the Department of Clinical Investigation at Fitzsimons Army Medical Center approved this project as exempted research, category B-6, Existing Records and Specimens, reference AR 40-38, Appendix B.

## **Variables**

Statistical models to estimate the dependent variable, mental health cost per CHAMPUS eligible beneficiary, were developed for outpatient, inpatient, and RTC MH/SA services. Costs per beneficiary were calculated by dividing total outpatient, inpatient, or RTC costs by the number of CHAMPUS eligible beneficiaries. Mental health costs are based on the government-paid amount, which the Office of Civilian Health and Medical Program of the Uniformed Services (OCHAMPUS) estimates as 84 percent of the total cost (OCHAMPUS 1994).

Key management indicators, including outpatient visits and inpatient dispositions per 1000 beneficiaries, inpatient bed days per 1000 beneficiaries, ALOS, average cost per bed day, average cost per inpatient disposition, and average cost per outpatient visit, were used as independent variables in this study to estimate mental health costs per eligible beneficiary. Additional

independent variables included the age category of the beneficiary, FY, and area in which treatment was received (CA/NCA). Operational definitions of the variables are summarized in Appendix D.

The analysis for this project was conducted in two phases. In the first part of the analysis, the Region 8 average beneficiary population for FYs 1993 and 1994 was broken down into the following categories: active duty (AD), non-active duty (NAD) aged 0-17, non-active duty aged 18-34, non-active duty aged 35-64, and non-active duty 65 and older. For the purposes of this project, it was assumed that the CHAMPUS eligible population was non-active duty beneficiaries between the ages of 0 and 64. Next, Region 8 inpatient and RTC utilization data and government costs were aggregated by one of 16 MH/SA DRGs and outpatient data were grouped by one of 21 MH/SA CPT-4 codes. This was done to identify the beneficiary population, make a preliminary assessment of MH/SA utilization patterns and trends, and distinguish high volume, high cost diagnostic categories.

In the next phase of the analysis, multiple regression models were developed to test the hypothesis that each independent variable made a unique contribution in explaining variation in outpatient (outpt), inpatient (inpt), or RTC MH/SA costs per CHAMPUS eligible beneficiary. The regression model for outpatient MH/SA services tested the hypothesis that the cost per beneficiary varied with age category of patient, FY, CA/NCA, average (avg) cost per visit, and visits/1000 beneficiaries. Next, step-wise multiple linear regression models were developed to examine the hypotheses that inpatient and RTC MH/SA costs per beneficiary varied with the age category of beneficiary, FY, CA/NCA, ALOS, average cost per bed day, average cost per disposition, bed days/1000, and dispositions (disps)/1000 beneficiaries. Hierarchical regression

techniques (Munro and Page 1993) were utilized in applying full and restricted models to estimate the unique contribution, or increase in  $R^2$ , made by each independent variable to variation in cost per beneficiary. The alpha level for inferential statistical testing was set at .05 (Polit and Hunler 1993).

The validity of the variables selected for study and the statistical methods employed are based on the use of commonly accepted healthcare industry key management indicators and methodologies established in previous research. The data were assumed reliable due to workload and data reporting requirements to follow DoD and CHAMPUS reporting guidelines and regulations.



## RESULTS

The first part of this project analyzed the Region 8 beneficiary population and MH/SA utilization patterns and trends by examining FY 1993 and FY 1994 outpatient, inpatient, and RTC government cost and utilization data from 14 CAs and 12 NCAs within Region 8. The Region 8 beneficiary population remained relatively stable during this retrospective study, declining by 2.3 percent from FY 1993 to FY 1994. The active duty population demonstrated the most precipitous decline, decreasing by 12.3 percent from 146,225 in FY 1993 to 128,334 in FY 1994. The decline in active duty population is projected to continue with the closure of Fitzsimons Army Medical Center and further downsizing and realignment of the military force structure. The CHAMPUS eligible population, which averaged 506,582 during the two-year period, remained stable, declining only 0.8 percent from 508,632 in FY 1993 to 504,532 in FY 1994. Table 1 and Figures 1-3 delineate Region 8 population patterns.

TABLE 1  
REGION 8 BENEFICIARY POPULATION

Beneficiary Category	FY 93 Population	FY 94 Population	2-Year Average
Active Duty (AD)	146,225	128,334	137,280
Non-AD 0-17	182,838	180,990	181,914
Non-AD 18-34	97,604	92,715	95,160
Non-AD 35-64	228,190	230,827	229,509
Non-AD > 65	81,785	86,926	84,356
<b>Total</b>	<b>736,642</b>	<b>719,792</b>	<b>728,217</b>

Source: RAPPS Data, September, 1995.

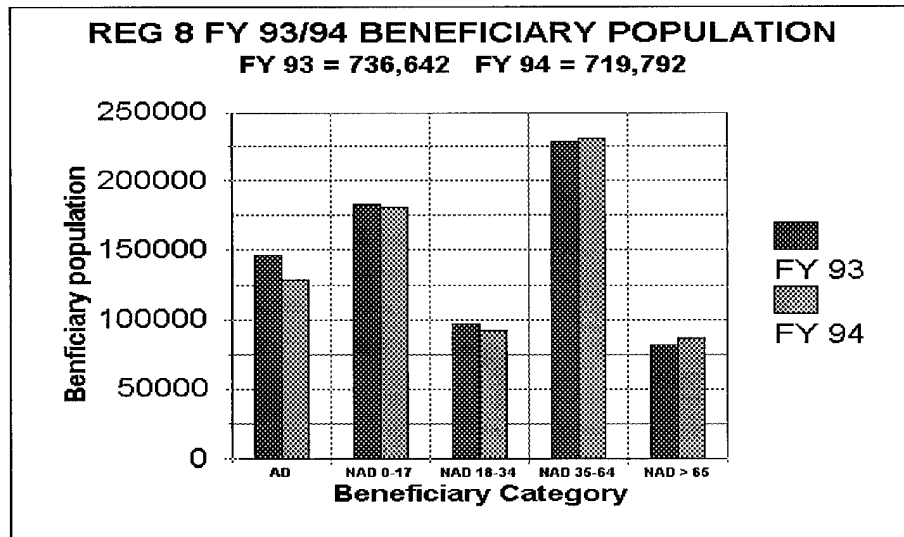


Fig. 1. Region 8 FYs 1993 and 1994 beneficiary population.

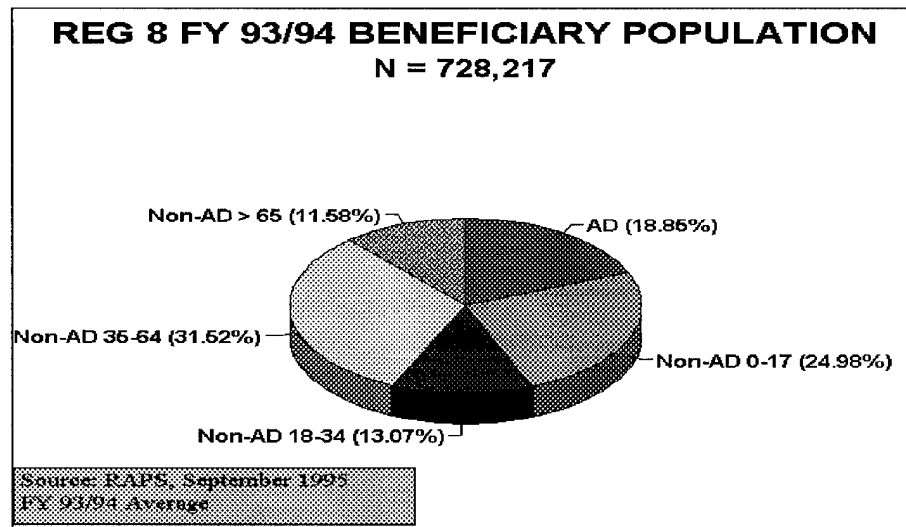


Fig. 2. Region 8 FY 93/94 average beneficiary population.

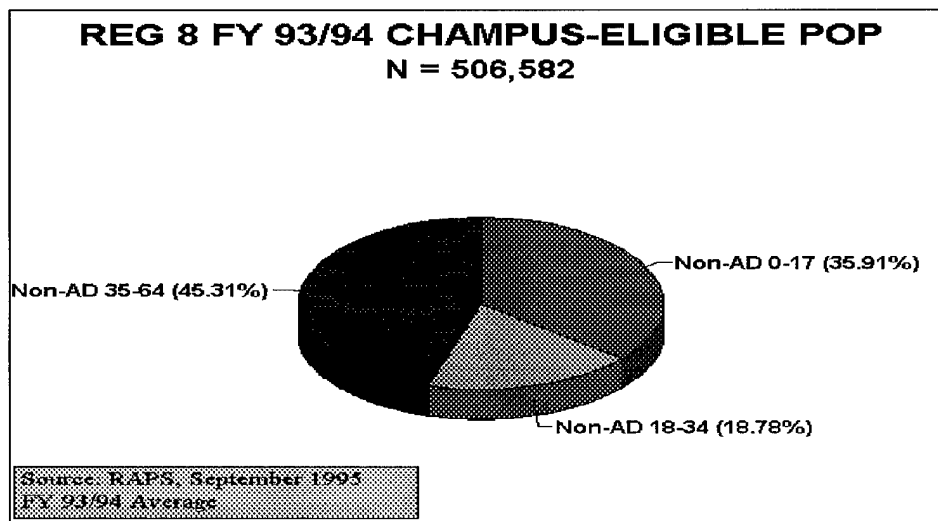


Fig. 3. Region 8 FY 93/94 average CHAMPUS-eligible population.

Region 8 CHAMPUS MH/SA costs for the sample population decreased by 9.9 percent from \$30,138,933 in FY 93 to \$27,145,364 in FY 94. Outpatient and inpatient government costs decreased 4.2 percent and 26.9 percent respectively from FY 93 to FY 94. However, RTC costs escalated from \$6,592,188 to \$8,673,692 in FY 94. As table 2 and figure 4 demonstrate, RTC expenses consumed an increasing proportion of government paid MH/SA costs. Figure 5 illustrates the relative contributions of outpatient, inpatient, and RTC services to total MH/SA costs during FYs 1993/1994.

TABLE 2

## REGION 8 FY 93/94 CHAMPUS MH/SA COSTS

MH/SA Service	FY 93 Cost (\$)	FY 93 Outpt Visits/ Inpt Disps	FY 94 Cost (\$)	FY 94 Outpt Visits/ Inpt Disps	2-YR Avg Cost (\$) FY 93/94	Visits/ Disp 2-YR Avg
<b>Outpt (total)</b>	\$11,675,063	206,960	\$10,022,131	201,447	\$10,848,596	204,203.5
Ages 0-17	\$4,980,238	83,367	\$4,268,745	82,104	\$4,624,872	82,735.5
Ages 18-34	\$2,693,971	47,451	\$2,275,773	43,916	\$2,484,872	45,683.5
Ages 35-64	\$4,000,854	76,142	\$3,477,613	75,427	\$3,739,233	75,684.5
<b>Inpt (total)</b>	\$11,871,682	2,182	\$8,673,692	2,039	\$10,272,688	2110.5
Ages 0-17	\$7,639,868	1,109	\$5,253,295	1,009	\$6,446,582	1059.0
Ages 18-34	\$2,281,943	503	\$1,729,641	498	\$2,005,792	503.0
Ages 35-64	\$1,949,871	565	\$1,690,756	532	\$1,820,314	548.5
<b>RTC (total)</b>	\$6,592,188	202	\$8,449,541	284	\$7,520,865	243.0
Ages 0-17	\$6,418,823	197	\$8,356,640	282	\$7,387,732	239.5
Ages 18-34	\$173,365	5	\$92,901	2	\$133,133	3.5
Ages 35-64	\$0	0	\$0	0	\$0	0.0
<b>Total</b>	\$30,138,933		\$27,245,364		\$28,642,149	

Source: MASS Data , December 1995; RCMAS Data, January 1996.

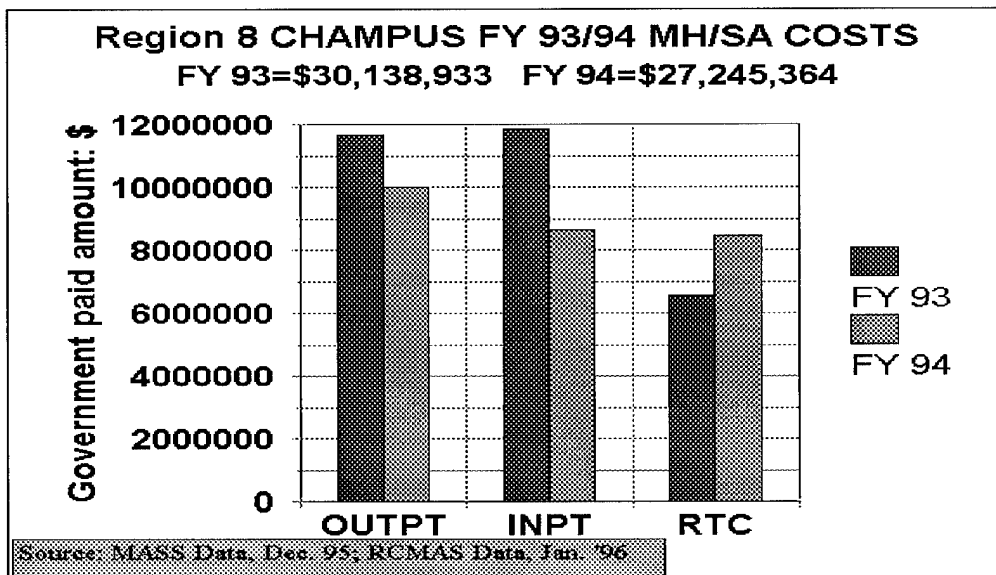


Fig. 4. Region 8 CHAMPUS FY 1993 and FY 1994 MH/SA costs.

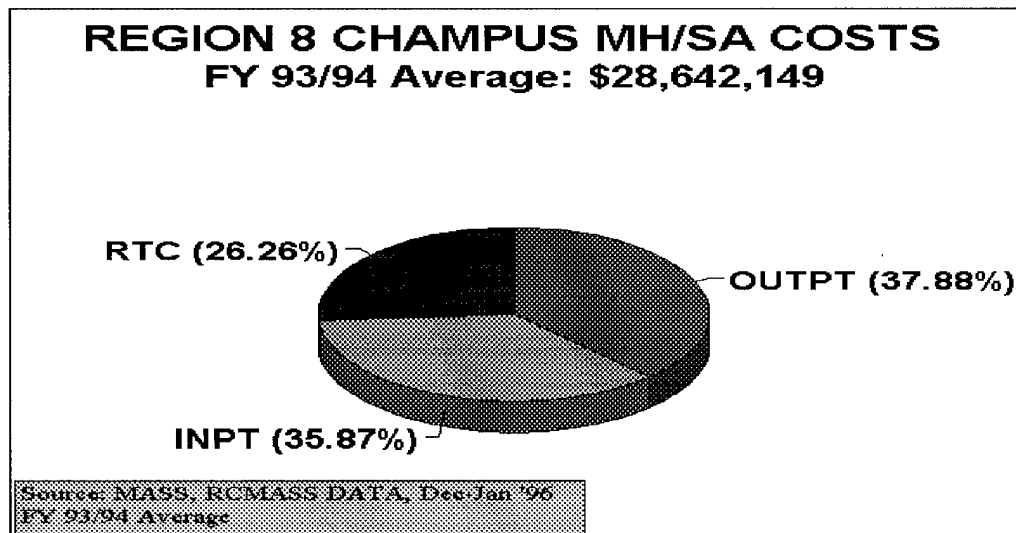


Fig. 5. Region 8 MH/SA FY 93/94 average government costs.

Subsequently, two-year averages of outpatient, inpatient, and RTC government costs and visits or dispositions were grouped by age category and diagnosis. Combined government costs for outpatient, inpatient, and RTC costs by age category are graphically displayed in Figure 6. Age category 0-17, which accounted for 36 percent of the sample population, consumed more than 64 percent of CHAMPUS MH/SA costs during the two-year period of this study. Figures 7 and 8 depict outpatient visits and costs by the age category of the beneficiary. Similarly, Figures 9 and 10 show inpatient dispositions and costs by age category. The child and adolescent beneficiary population, aged 0 to 17, accounted for over 50 percent of dispositions and 62 percent of CHAMPUS inpatient costs. The same category of beneficiaries, as displayed in Figures 11 and 12, accounted for over 98 percent of RTC dispositions and costs during the two-year period of this study.

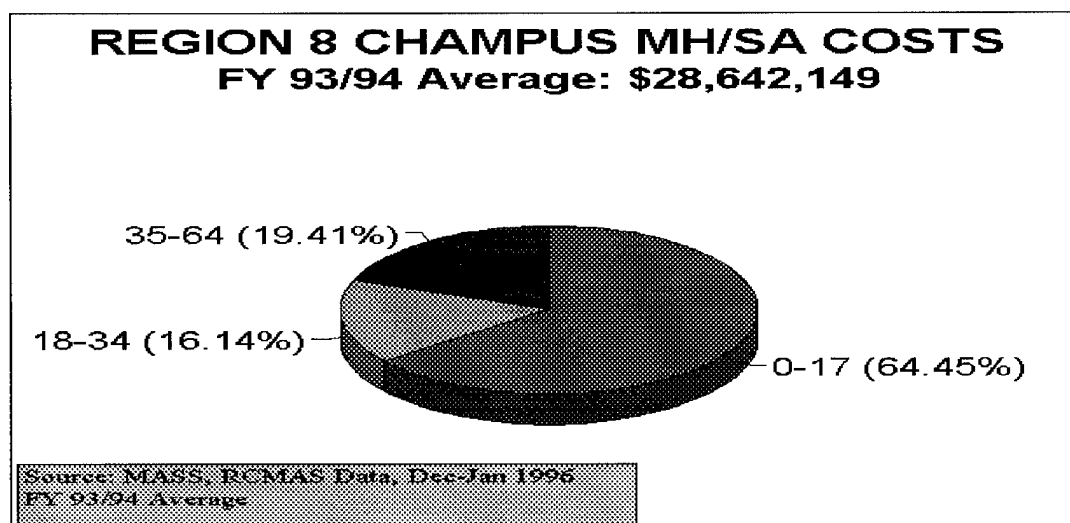


Fig. 6. Region 8 CHAMPUS MH/SA FY 1993/1994 average costs by age category.

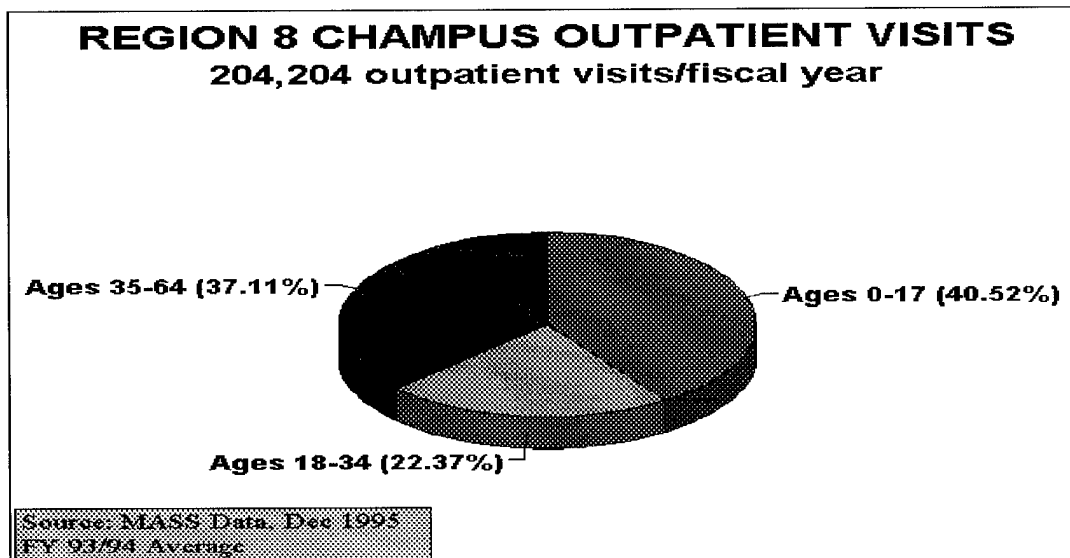


Fig. 7. Region 8 CHAMPUS outpatient MH/SA visits (FY 93/94 average).

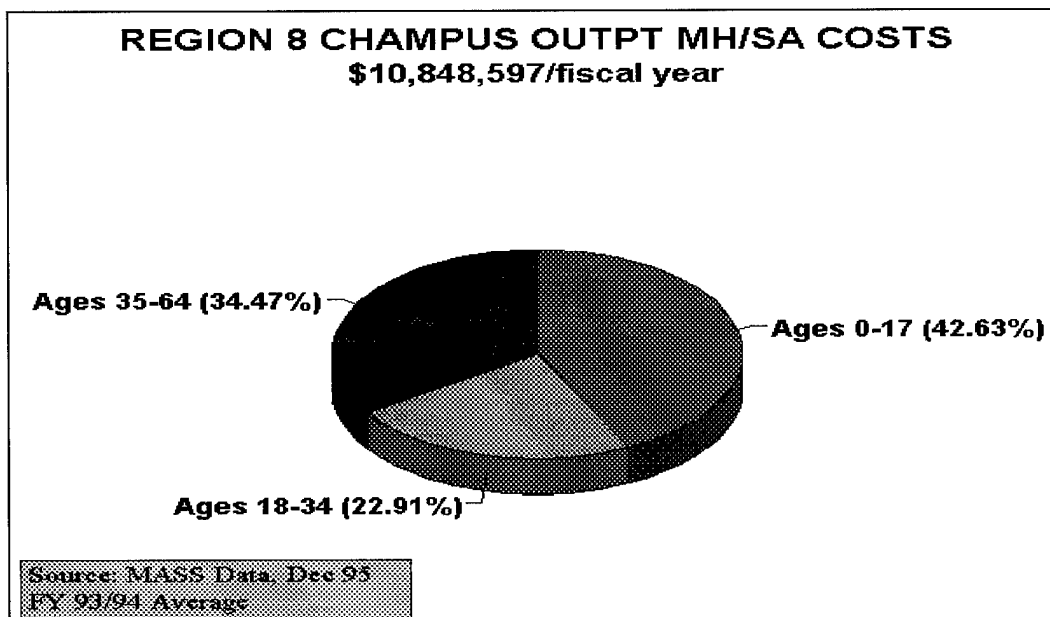


Fig. 8. Region 8 CHAMPUS outpatient MH/SA costs (FY 93/94 average).

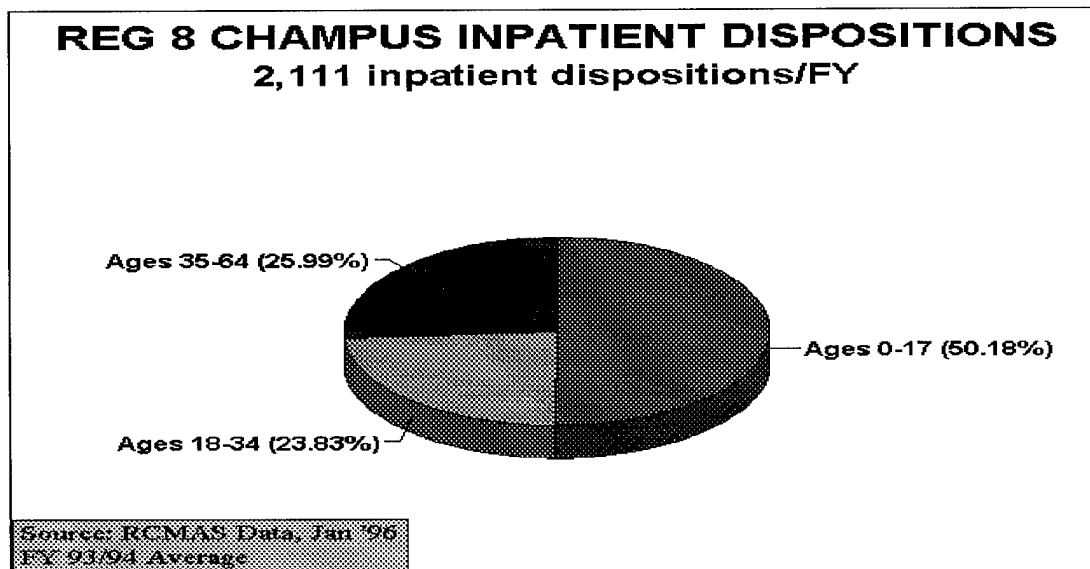


Fig. 9. Region 8 CHAMPUS inpatient MH/SA dispositions by age category of beneficiary.

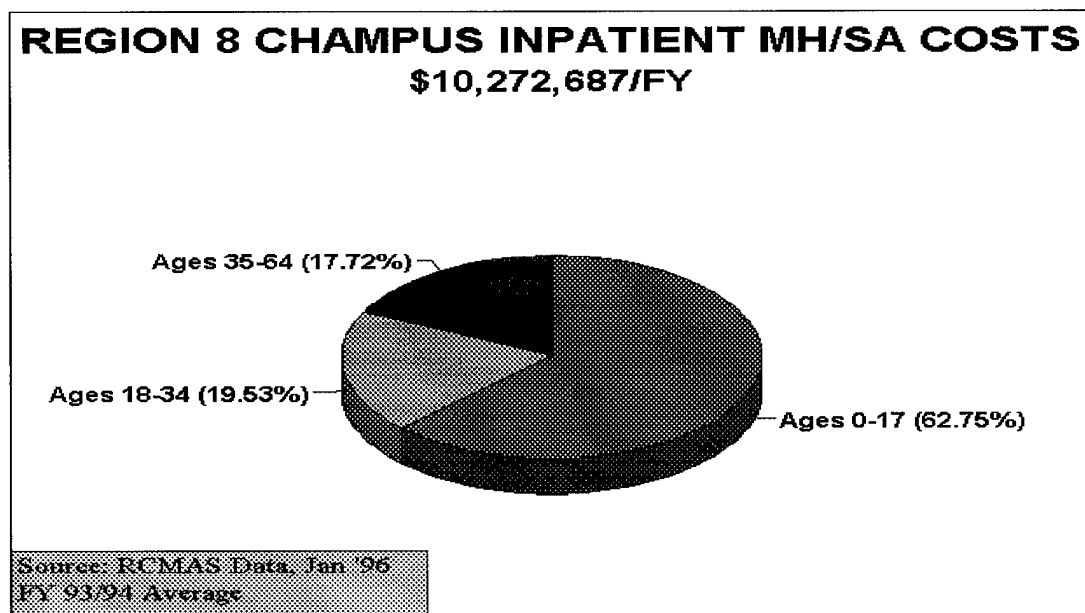


Fig. 10. Region 8 CHAMPUS inpatient MH/SA costs by age category of beneficiary.



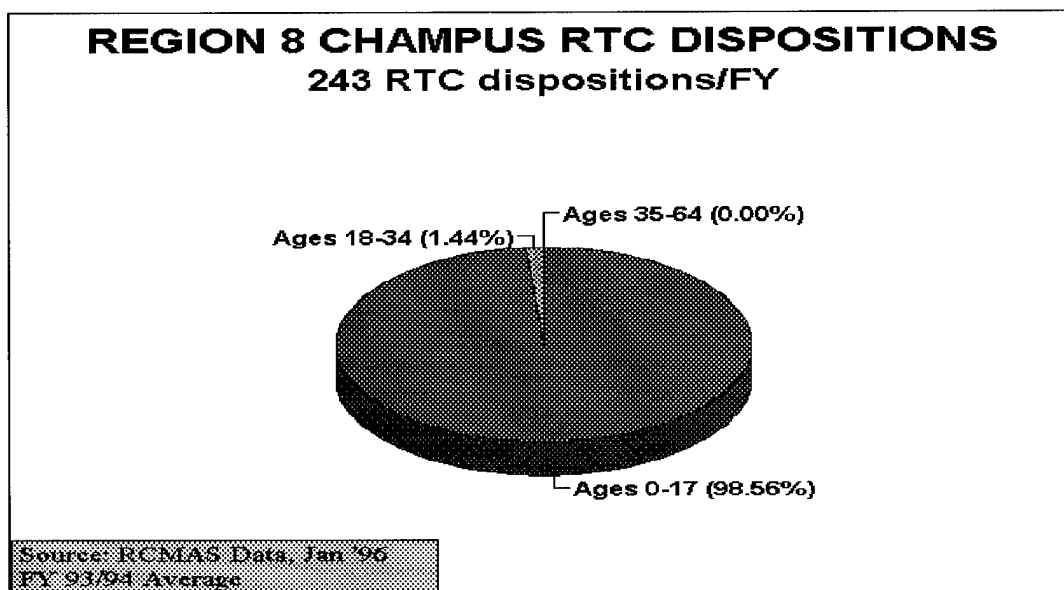


Fig. 11. Region 8 CHAMPUS RTC MH/SA dispositions (FY 93/94 average).

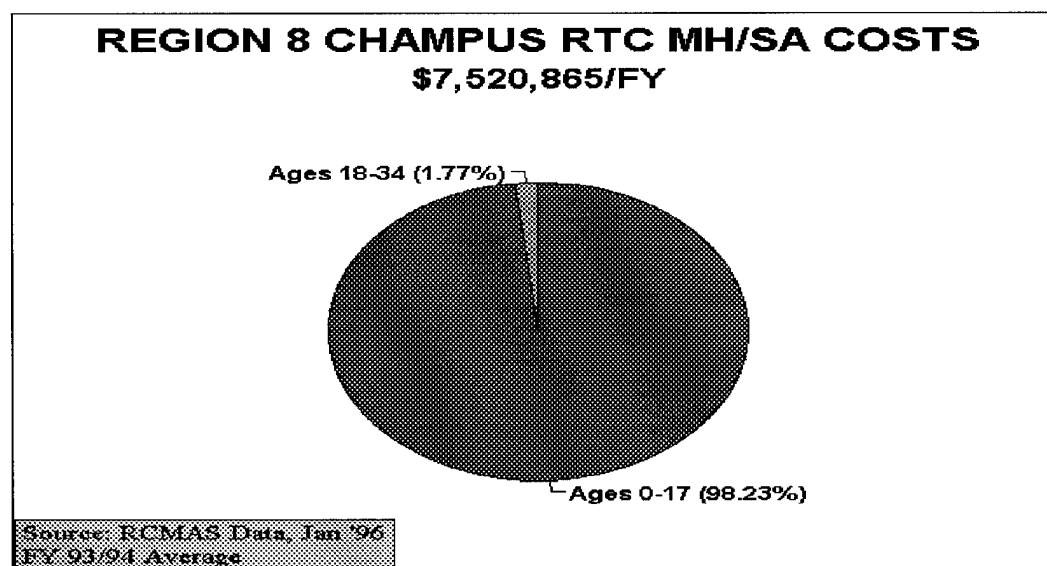


Fig. 12. Region 8 CHAMPUS RTC MH/SA costs (FY 93/94 average).

In the ensuing phase of this project, regional outpatient data were pooled by CPT-4 code and inpatient and RTC data were aggregated by DRG. As in the preceding phase of the analysis, FY 1993 and FY 1994 data were combined to yield a two-year average. Appendix E, displays regional data by CPT-4 code and reporting area for outpatient MH/SA utilization. Appendix F exhibits inpatient utilization patterns and Appendix G shows RTC information by DRG and reporting area for the sample population.

The total number of outpatient visits and government paid MH/SA costs for the Region 8 catchment and non-catchment areas in this study decreased for all three age groups from FY 1993 to FY 1994. The top CPT-4 procedure codes for total outpatient visits for the sample population were (1) 90844 (individual psychotherapy, approximately 45-50 minutes), (2) 90847 (family medical psychotherapy, conjoint), (3) 90843 (individual psychotherapy, approximately 20-30 minutes), (4) 90853 (group medical psychotherapy), and (5) 90801 (psychiatric diagnostic interview examination). The leading four procedure codes for visits were also the top contributors to outpatient costs, with CPT-4 procedure code 90830 (psychological testing) making the fifth greatest contribution. The most frequently occurring CPT-4 code, 90844, accounted for over 61 percent of all outpatient visits and 63 percent of total outpatient costs. Together, the top five CPT-4 procedures accounted for approximately 88 percent of all outpatient visits and over 90 percent of costs. Figures 13 and 14 graphically demonstrate the above information. Figures 15-20 further separate utilization and costs by individual age category. CPT-4 codes 90844, 90853, and 90843 consistently appeared as the top diagnoses across all age groups.

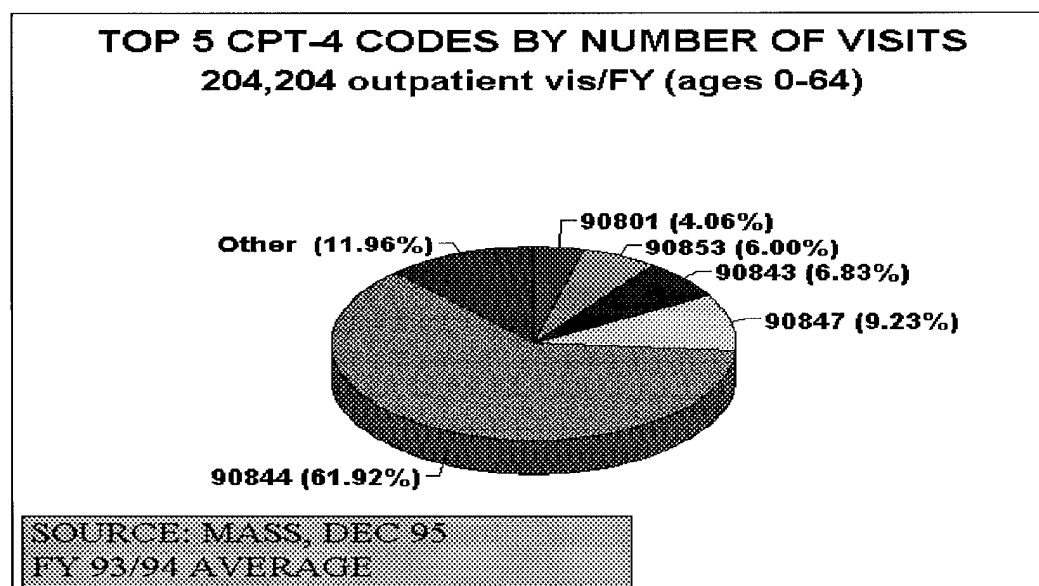


Fig. 13. Top 5 CPT-4 codes by number of outpatient visits.

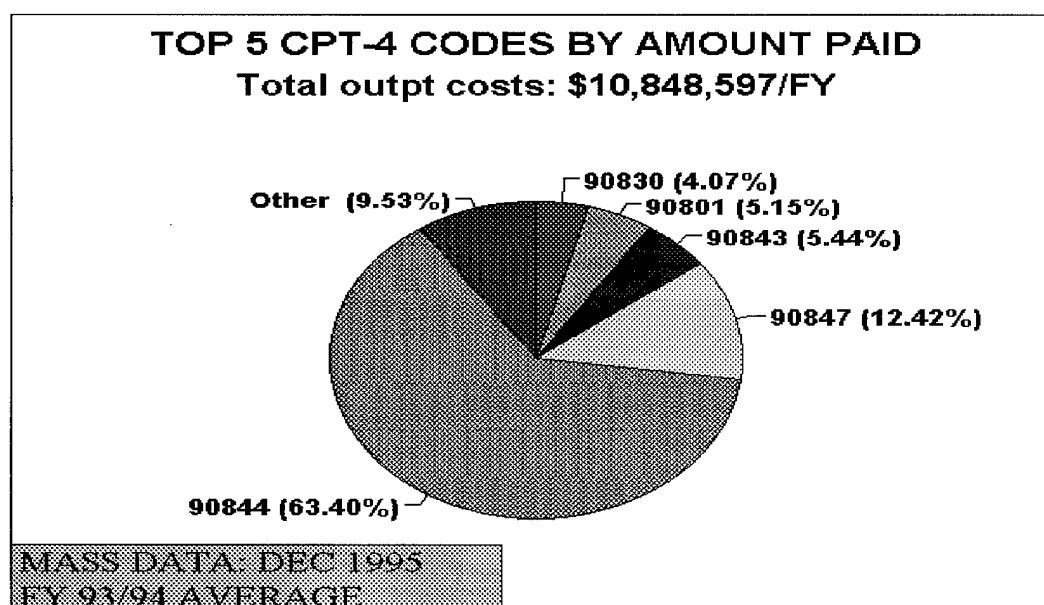


Fig. 14. Top 5 CPT-4 codes by amount paid.

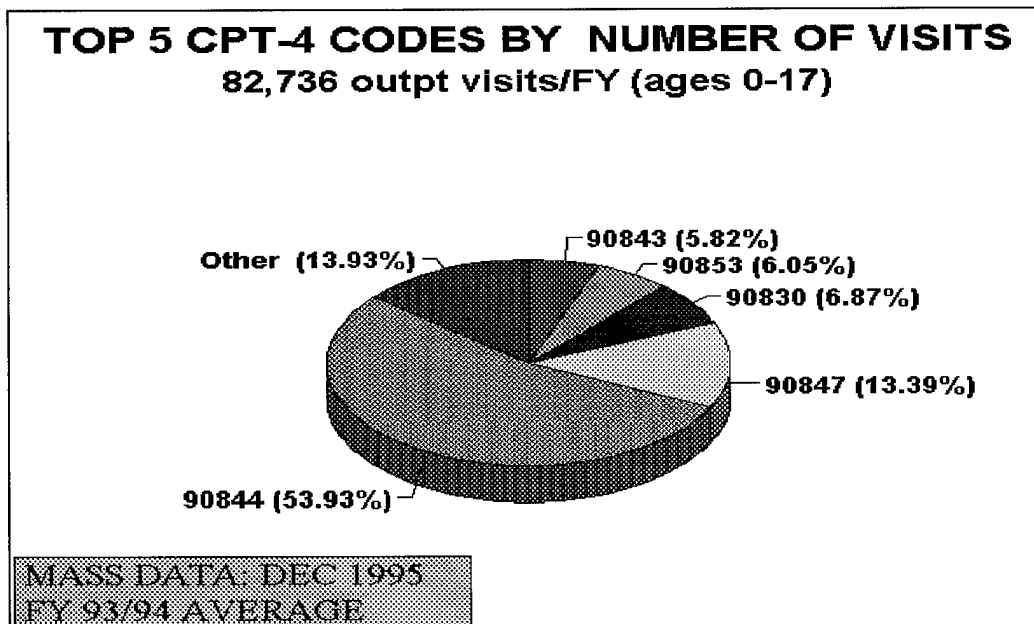


Fig. 15. Top 5 CPT-4 codes by number of outpatient visits, ages 0-17.

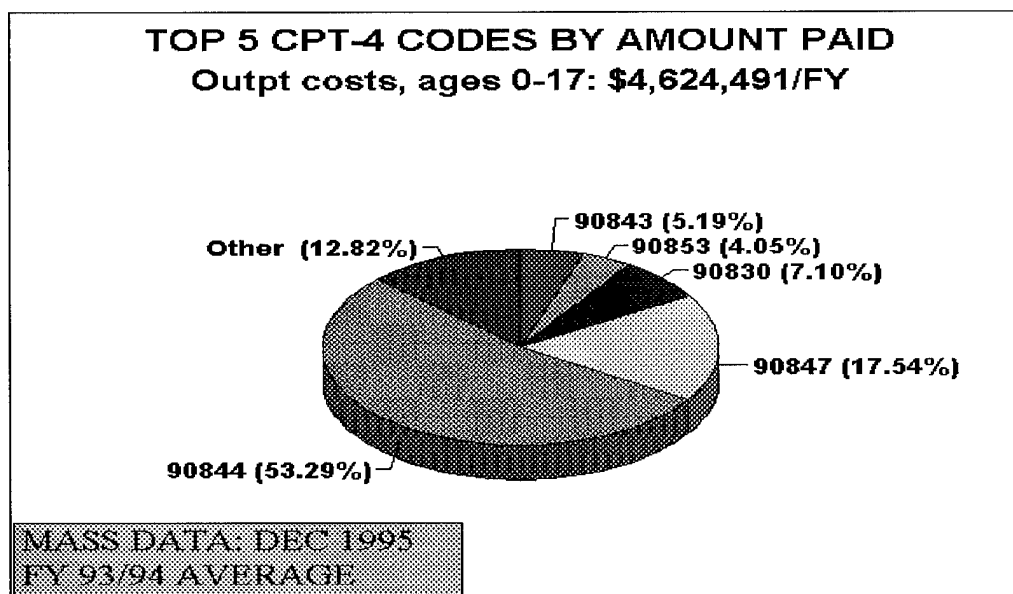


Fig. 16. Top 5 CPT-4 codes by amount paid, ages 0-17.

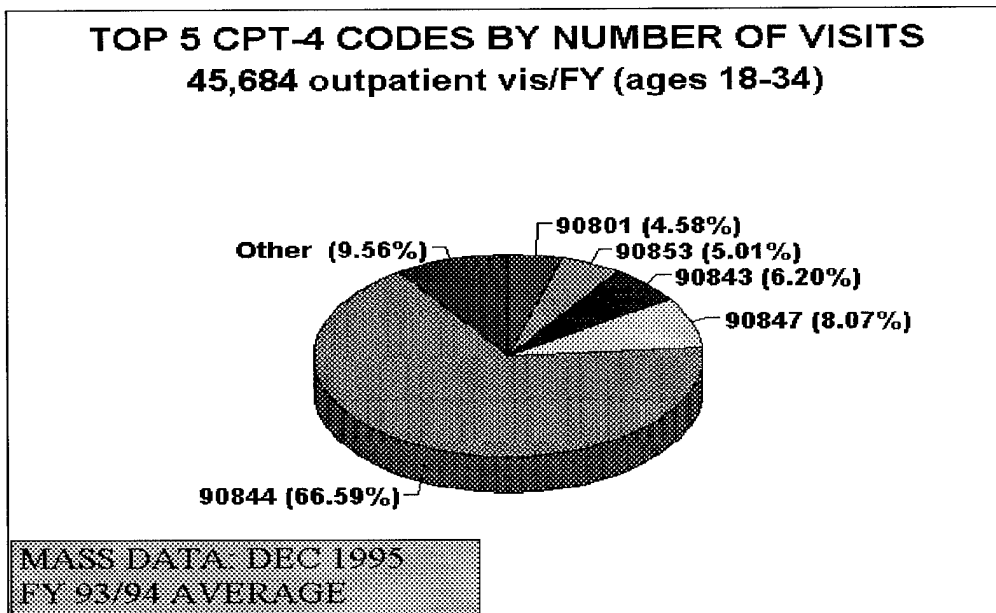


Fig. 17. Top 5 CPT-4 codes by number of outpatient visits, ages 18-34.

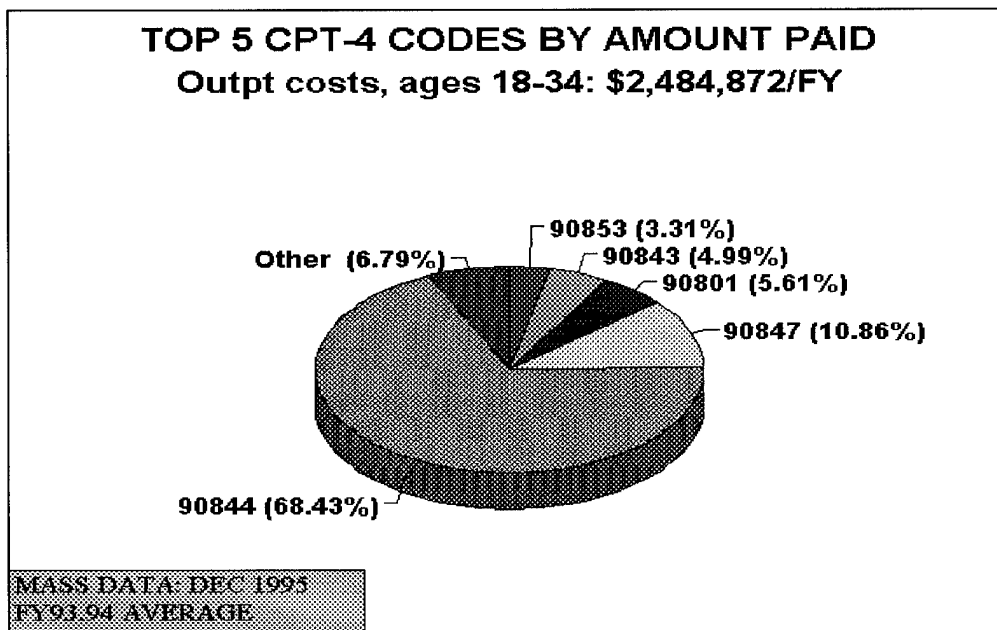


Fig. 18. Top 5 CPT-4 codes by amount paid, ages 18-34.

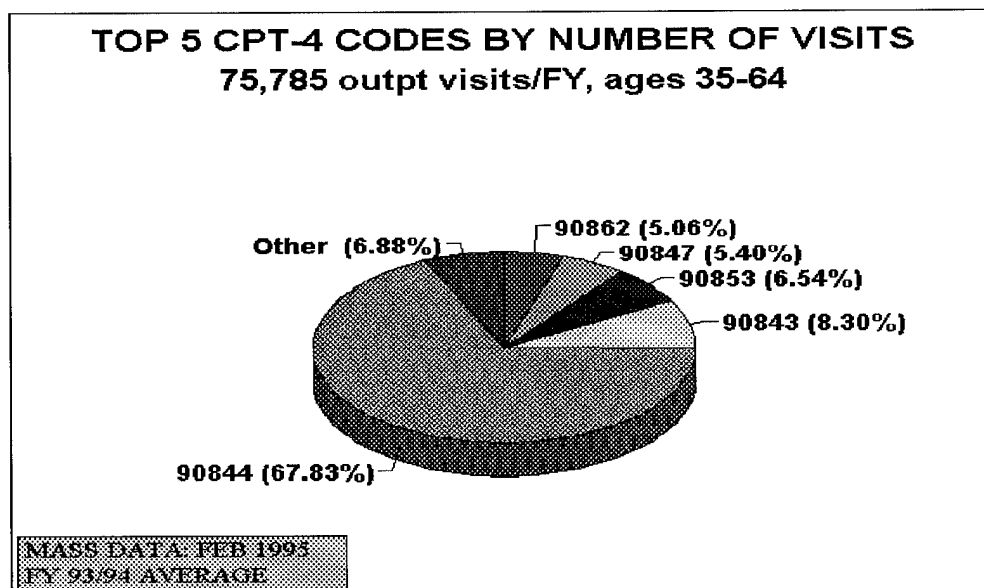


Fig. 19. Top CPT-4 codes by number of outpatient visits, ages 35-64.

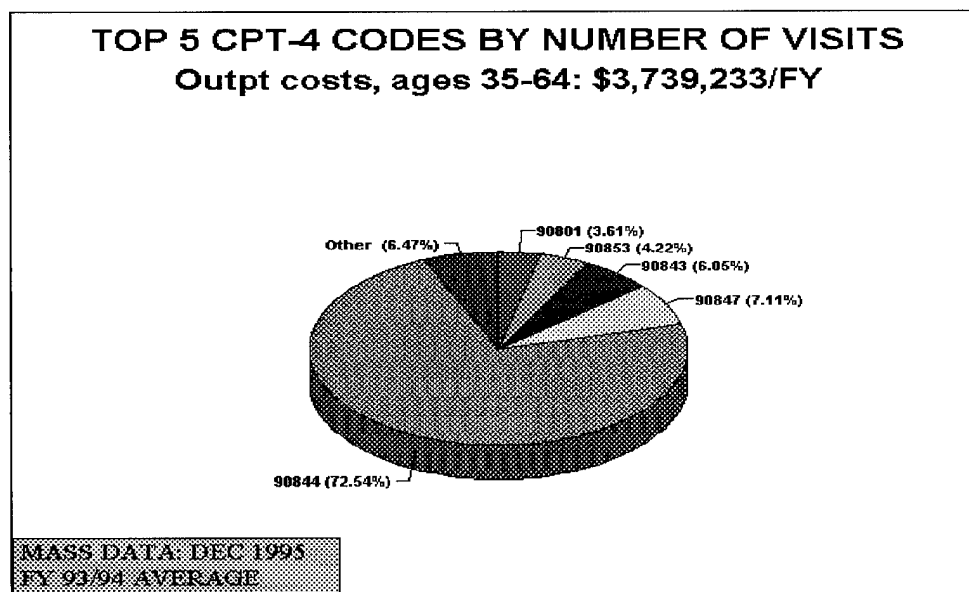
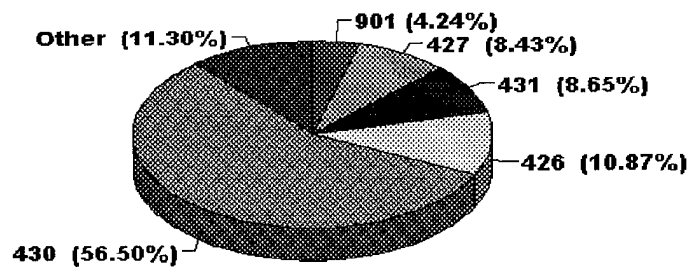


Fig. 20. Top 5 CPT-4 codes by amount paid, ages 35-64.

Appendix F summarizes sample inpatient utilization data by DRG and reporting area for the three age categories in this study. The most frequently occurring DRGs for inpatient dispositions of the sample population were (1) 430, psychoses; (2) 431, childhood mental disorders, (3) 426, depressive neuroses; (4) 427, neuroses except depressive; and (5) 901, alcohol/drug abuse/dependence, detoxification or other symptoms treated, age greater than 21, without complicating conditions. Together, these top five DRGs accounted for 88.7 percent of all inpatient dispositions. The most frequently occurring DRG, 430, alone accounted for more than 56 percent of all dispositions. The leading DRGs contributing to government costs were (1) 430, (2) 431, (3) 426, (4) 427, and (5) 428, disorders of personality and impulse control. Over 90 percent of costs could be attributed to these top five DRGs, with DRG 430 alone accounting for over 59 percent of costs. Figures 21 and 22 display the top 5 DRGs by disposition and cost for the sample population. Figures 23-28 breaks out inpatient disposition and government MH/SA costs by individual age category. DRGs 430 and 426 consistently appeared among the top 5 diagnoses for all age categories. DRG 901 became a prominent contributor to inpatient costs and dispositions with older categories of beneficiaries.

### TOP 5 DRGs FOR INPT DISPOSITIONS

2,111 disp/FY (ages 0-64)

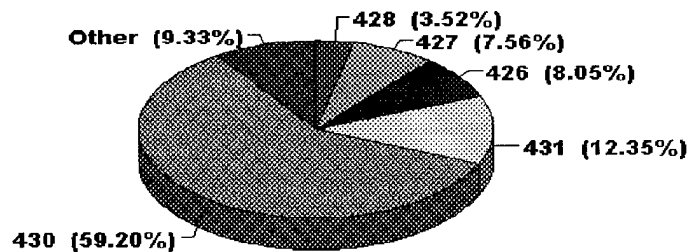


Source: RCMAS Data, Jan 96  
FY 93/94 Average

Fig. 21. Top 5 DRGs for inpatient dispositions (FY 93/94 average).

### TOP 5 INPATIENT DRG's BY AMOUNT PAID

Total inpatient costs: \$10,272,687/FY



Source: RCMAS Data Jan 96  
FY 93/94 Average

Fig. 22. Top 5 inpatient DRGs by amount paid (FY 93/94 average).



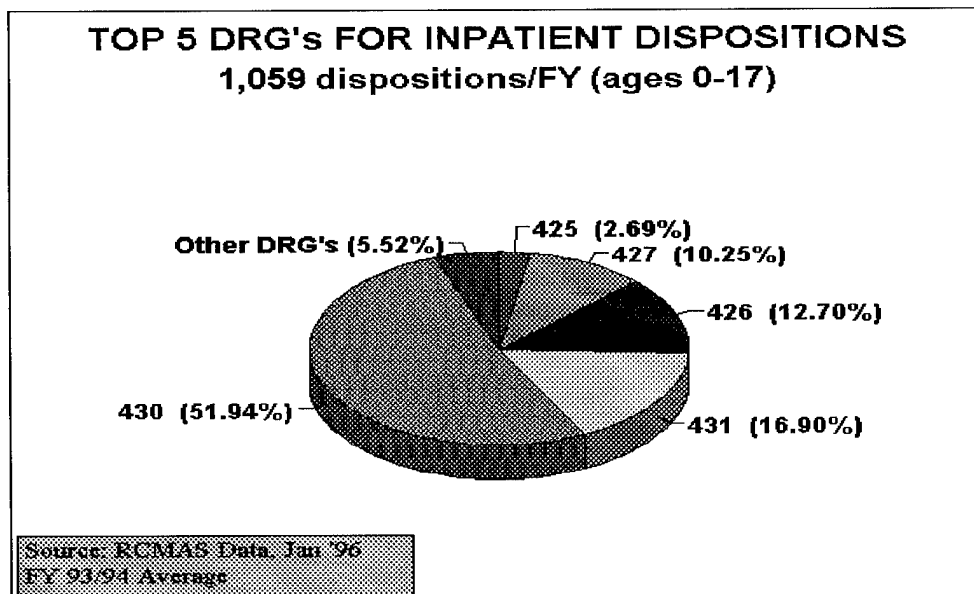


Fig. 23. Top 5 DRGs for inpatient dispositions, ages 0-17 (FY 93/94 average).

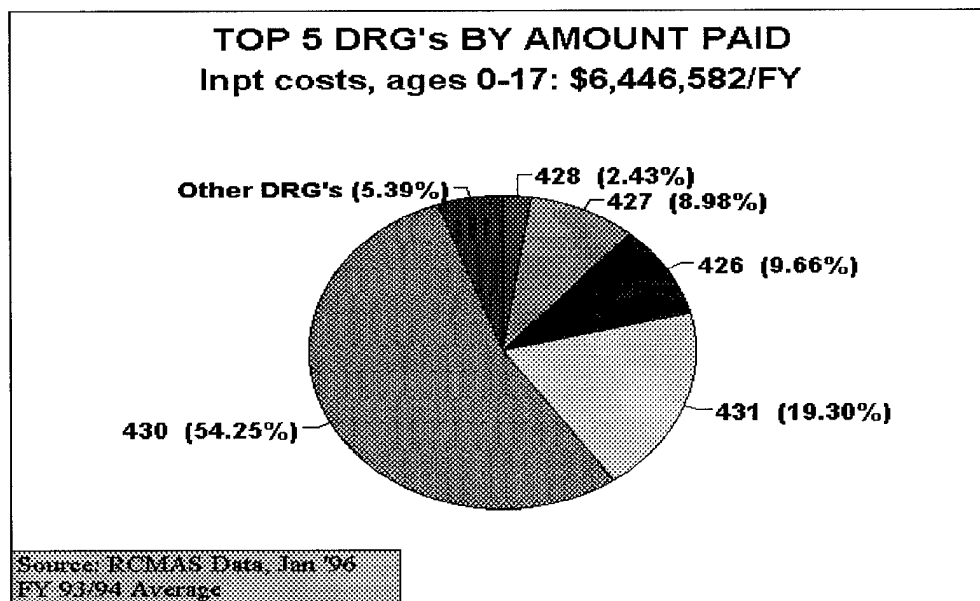


Fig. 24. Top 5 inpatient DRGs by amount paid, ages 0-17 (FY 93/94 average)

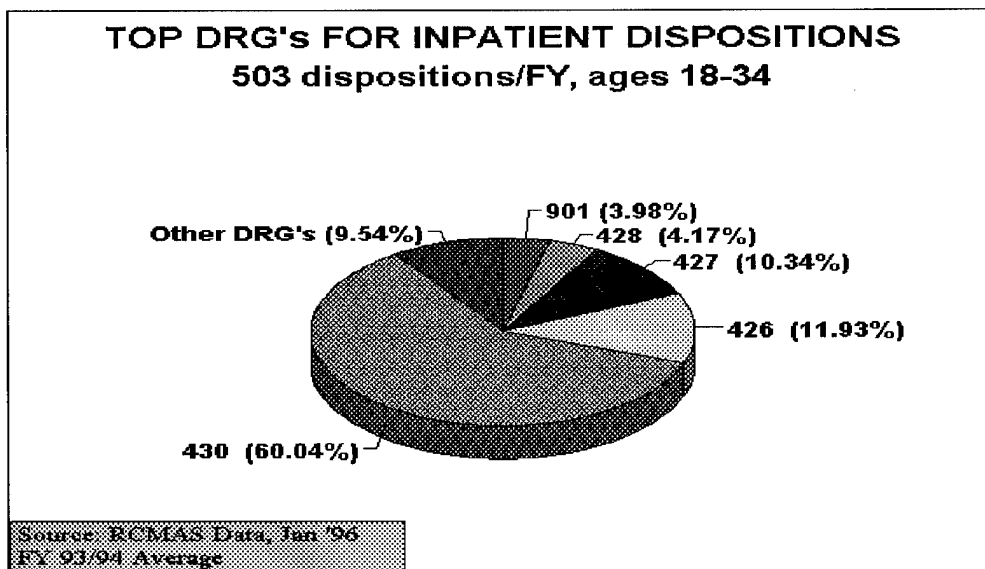


Fig. 25. Top 5 DRGs for inpatient dispositions, ages 18-34 (FY 93/94 average).

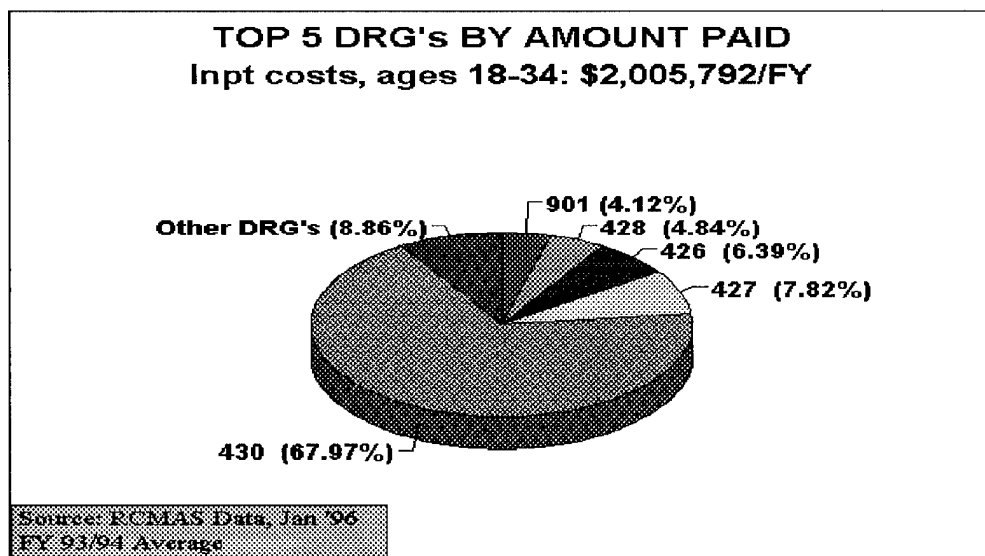


Fig. 26. Top 5 Inpatient DRGs by amount paid, ages 18-34 (FY 93/94 average).

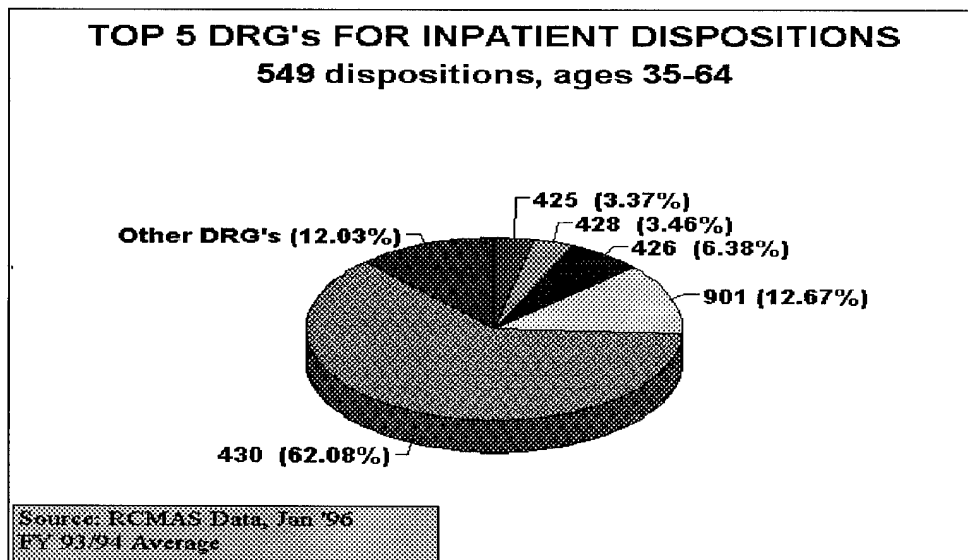


Fig. 27. Top 5 DRGs for inpatient dispositions, ages 35-64 (FY 93/94 average).

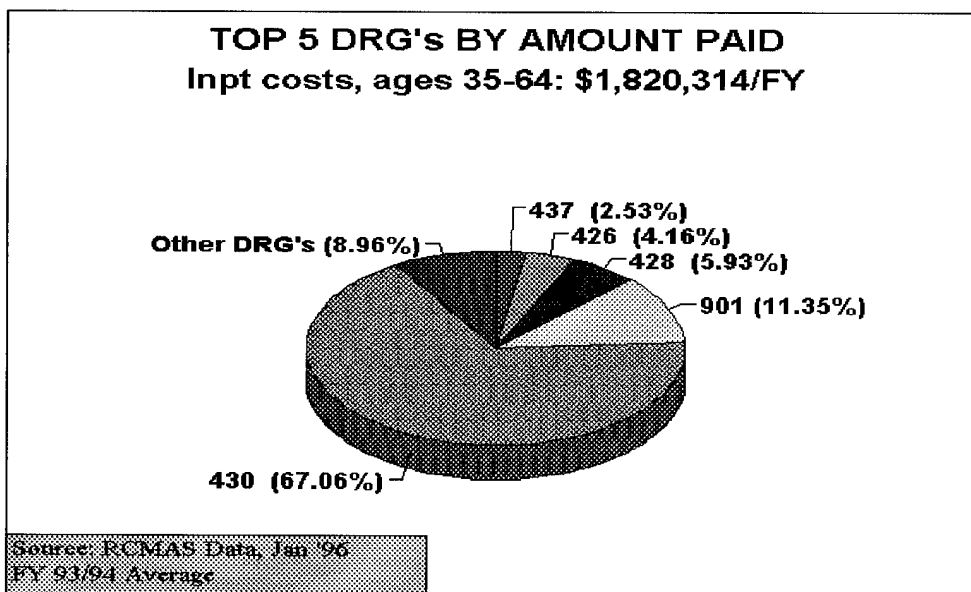


Fig. 28. Top 5 inpatient DRGs by amount paid, ages 35-64 (FY 93/94 average).

Region 8 RTC dispositions and costs for the 14 catchment and 12 non-catchment areas in this study increased by 28.9 percent and 22 percent respectively from FY 1993 to FY 1994. Appendix 7 provides more detailed RTC data for FYs 1993 and 1994. The leading 5 DRGs for RTC dispositions for the sample population were (1) 430, psychoses; (2) 431, childhood mental disorders; (3) 426, depressive neuroses; (4) 427, neuroses except depressive; and (5) 428, disorders of personality and impulse control. These top DRGs accounted for over 96 percent of all RTC dispositions. Four of the top DRGs for RTC dispositions were the same as for inpatient dispositions. The leading DRGs contributing to RTC costs were identical to those for dispositions and explained 94.7 percent of all costs. The most frequently occurring DRG, 430, accounted for over 50 percent of RTC dispositions and more than 46 percent of government costs. Of the combined two-year total of 486 RTC dispositions for the sample population, only seven from age category 18-34 were from an age group other than ages 0-17. Therefore, figures 29 and 30 display only composite FY 1993/94 average data for all RTC dispositions and costs and do not further separate utilization and costs by age category.

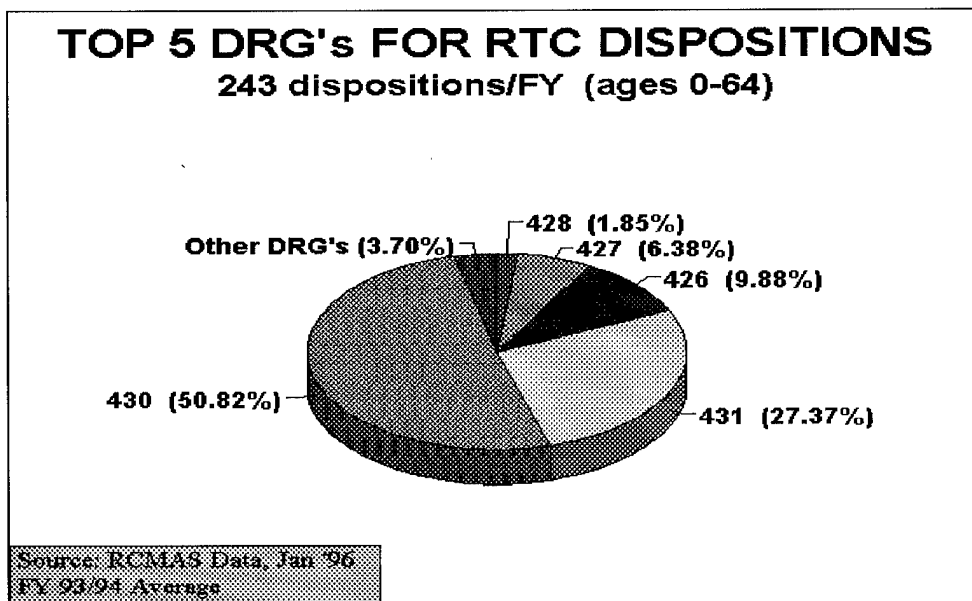


Fig. 29. Top 5 DRGs for RTC dispositions (FY 93/94 average).

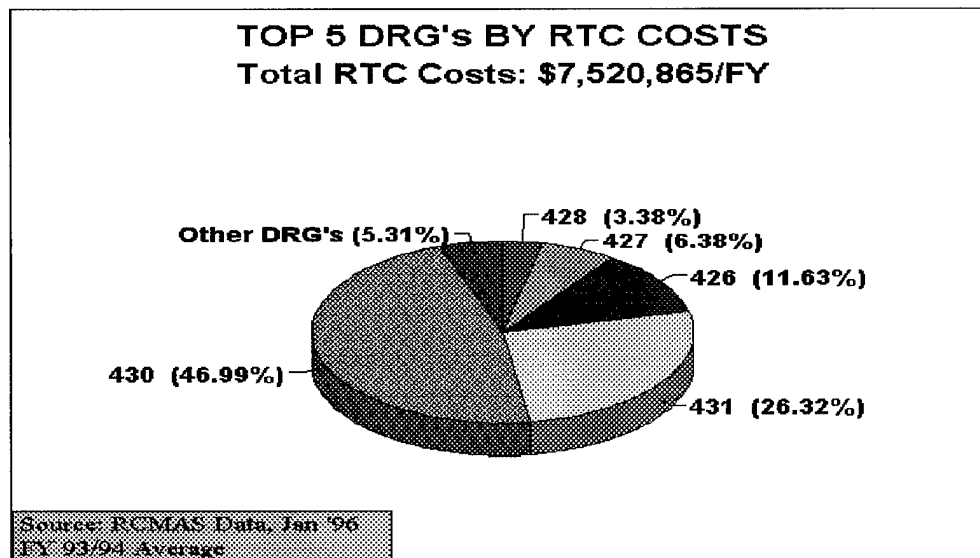


Fig. 30. Top 5 RTC DRGs by amount paid (FY 93/94 average).

Descriptive statistics summarizing pertinent predictive factors for estimating outpatient MH/SA costs per beneficiary are displayed in Table 3 below. Fifty-four percent of the observations came from within MTF catchment areas. Outpatient MH/SA costs per beneficiary and visits/1000 beneficiaries exhibited wide variation among the catchment and non-catchment areas sampled. The mean cost per CHAMPUS eligible beneficiary for outpatient MH/SA services in FY 93/94 ranged from \$8.93 to \$77.53 per beneficiary, with a mean of \$23.75. Visits per 1000 beneficiaries fluctuated from 59.16 to 4414.30, with a mean of 472.67.

TABLE 3

DESCRIPTIVE STATISTICS FOR OUTPATIENT UTILIZATION AND COSTS

Variable	N	Mean	Std. Dev.	Minimum	Maximum
Cost/beneficiary (total sample)	156	\$24.44	\$31.84	\$2.68	\$224.71
Ages 0-17	52	\$27.41	\$34.71	\$5.12	\$194.96
Ages 18-34	52	\$29.87	\$38.46	\$2.68	\$224.71
Ages 35-64	52	\$16.03	\$16.89	\$3.23	\$100.31
Cost/visit (total sample)	156	\$52.55	\$8.93	\$25.68	\$77.53
Ages 0-17	52	\$54.63	\$9.87	\$30.68	\$75.79
Ages 18-34	52	\$54.98	\$7.74	\$40.36	\$77.53
Ages 35-64	52	\$48.05	\$7.32	\$25.68	\$64.52
visits/1000 (total sample)	156	472.67	625.87	59.16	4414.30
Ages 0-17	52	509.11	632.95	132.17	3538.20
Ages 18-34	52	573.56	792.49	59.16	4414.30
Ages 35-64	52	335.34	361.77	69.83	2064.60

The regression equation developed to predict the outpatient cost per beneficiary was statistically significant, with  $F(3,152) = 4,249.97$ ,  $p < 0.0000$ . As indicated in Table 4, visits/1000 beneficiaries, cost/visit, and CA/NCA accounted for statistically significant differences in the cost/beneficiary. The summary predictor equation yielded an  $R^2$  of .9882 and an adjusted  $R^2$  of .9880. This suggests that together these variables account for 98.8 percent of the variation in the outpatient MH/SA cost per CHAMPUS eligible beneficiary. Outpatient costs per beneficiary escalate with increases in visits/1000 beneficiaries and cost/visit. Furthermore, outpatient costs per beneficiary tend to be more expensive within the catchment area. There were no statistically significant differences in the cost per beneficiary associated with FY. Figure 31 displays the unique contributions of the statistically significant independent variable to variation in the outpatient cost/beneficiary. Additionally, it depicts the shared variance of the independent variables.

TABLE 4

HYPOTHESIS TESTS OF EFFECTS ON OUTPATIENT COST/BENEFICIARY  
UNIQUELY ATTRIBUTABLE TO INDEPENDENT VARIABLES (n = 156)

Effect Tested	R <sup>2</sup> Full Model	R <sup>2</sup> Reduced	Variance Uniquely Explained	df1	df2	F	p
Visits/1000 beneficiaries	.9882	0.0147	.9735	1	152	12,540.38	0.0000
Cost/visit	.9882	0.97816	.0100	1	152	129.33	0.0000
Catchment/non-catchment area	.9882	.9879	.0003	1	152	4.12	0.0389
Summary predictor model	.9882			3	152	4,249.97	0.0000

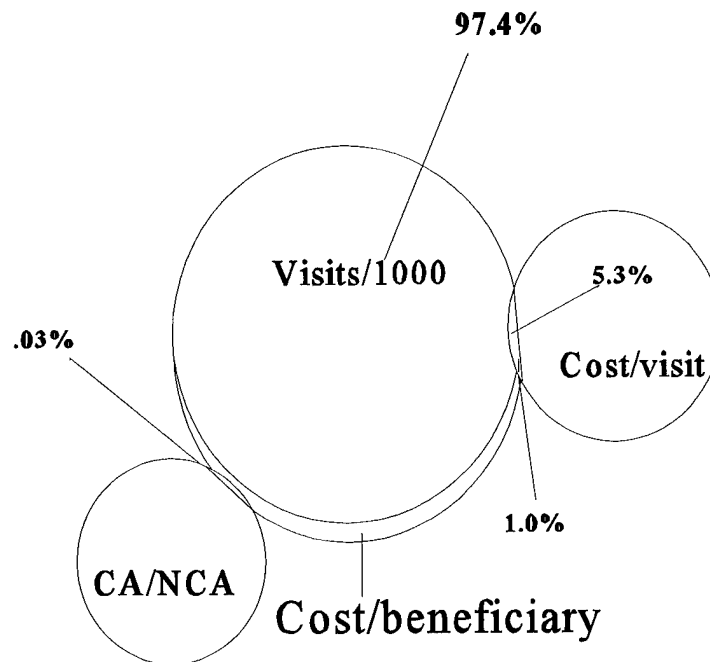


Fig. 31. Unique contribution of independent variables to outpatient the MH/SA cost/beneficiary.

One-way analysis of variance (ANOVA) and the Scheffe' test (Munro and Page 1993; Kerlinger 1986) disclosed that outpatient costs per beneficiary were not significantly different among age categories. However, outpatient costs per beneficiary varied widely among the 26 reporting areas, ranging from \$5.83 to \$161.92 per CHAMPUS eligible beneficiary. ANOVA revealed significant differences among reporting areas for the outpatient cost per beneficiary, with  $F(25, 130) = 26.12, p < .0000$ . The Scheffe' test disclosed significant differences between reporting area 11 and each of the other 25 reporting areas. Reporting area average costs per beneficiary, standard deviations, and average differences are listed in Appendix H.



Descriptive statistics summarizing relevant utilization and cost factors contributing to the inpatient MH/SA cost per beneficiary are displayed in Table 5. Average CHAMPUS government inpatient costs per eligible beneficiary exhibited wide variation, ranging from a low of \$2.68 to a high of \$224.71. Dispositions/1000 beneficiaries and bed days/1000 beneficiaries also reflected wide variation, as exhibited in Table 5 below. Again, it should be noted that government paid costs do not include CHAMPUS copayments, annual deductibles, or third party insurance payments.

TABLE 5

DESCRIPTIVE STATISTICS FOR INPATIENT MH/SA UTILIZATION AND COSTS

Variable	N	Mean	Std. Dev.	Minimum	Maximum
Cost/beneficiary (total sample)	156	\$23.75	\$21.64	\$1.54	\$134.96
Ages 0-17	52	\$35.09	\$20.53	\$8.87	\$89.04
Ages 18-34	52	\$27.20	\$24.45	\$3.84	\$134.96
Ages 35-64	52	\$8.96	\$6.06	\$1.54	\$32.43
ALOS (total sample)	156	12.09	12.42	3.50	157.00
Ages 0-17	52	13.65	4.01	7.20	25.00
Ages 18-34	52	12.69	20.82	3.50	157.00
Ages 35-64	52	9.94	3.44	3.60	21.00
Dispositions/1000 (total sample)	156	5.16	3.48	0.15	19.61
Ages 0-17	52	6.40	3.03	1.55	14.07
Ages 18-34	52	6.45	4.05	0.72	19.61
Ages 35-64	52	2.64	1.24	0.15	6.32
Bed days/1000 (total sample)	156	67.19	103.98	3.08	1180.50
Ages 0-17	52	90.94	57.79	15.12	268.22
Ages 18-34	52	84.46	163.31	9.84	1180.50

<b>Variable</b>	<b>N</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Minimum</b>	<b>Maximum</b>
Ages 35-64	52	26.17	15.93	3.08	79.00
Cost/bed day (total sample)	156	\$393.19	\$110.71	\$11.00	\$747.00
Ages 0-17	52	\$402.90	\$93.41	\$229.00	\$587.00
Ages 18-34	52	\$424.64	\$124.61	\$11.00	\$747.00
Ages 35-64	52	\$352.03	\$100.83	\$191.00	\$637.00
Cost/disposition (total sample)	156	\$4,336.16	\$1,969.79	\$1,156.27	\$10,524.00
Ages 0-17	52	\$5,478.99	\$1,995.23	\$2,621.86	\$10,380.08
Ages 18-34	52	\$4,060.23	\$1,705.76	\$1,156.27	\$9,745.00
Ages 35-64	52	\$3,469.26	\$1,651.11	\$1,463.56	\$10,524.00

The multiple linear regression model developed to predict the inpatient MH/SA cost per beneficiary was statistically significant, with  $F(3,152) = 616.53$ ,  $p < .0000$ . As portrayed in Table 6, cost/disposition, dispositions per 1000 beneficiaries, and FY accounted for statistically significant differences in the inpatient cost per CHAMPUS eligible beneficiary. These results indicate that the inpatient cost per beneficiary demonstrated a statistically significant reduction from FY 1993 to FY 1994. Furthermore, the inpatient MH/SA cost per eligible beneficiary escalates as the cost per disposition and dispositions per 1000 increase. The summary predictor equation produced an  $R^2$  of .9241 and an adjusted  $R^2$  of .9226.

TABLE 6

**HYPOTHESIS TESTS OF EFFECTS ON INPATIENT COST/BENEFICIARY  
UNIQUELY ATTRIBUTABLE TO INDEPENDENT VARIABLES (n = 156)**

<b>Effect Tested</b>	<b>R<sup>2</sup> Full Model</b>	<b>R<sup>2</sup> Reduced</b>	<b>Variance Uniquely Explained</b>	<b>df1</b>	<b>df2</b>	<b>F</b>	<b>p</b>
Dispositions/1000	.9241	.3415	.5825	1	152	1,166.00	0.0000
Cost/disposition	.9241	.7628	.1612	1	152	322.71	0.0000
Fiscal year	.9241	.9207	.0033	1	152	6.65	0.0109
Summary predictor model	.9241			3	152	616.52	0.0000

The results imply that, combined, the above independent variables accounted for 92.4 percent of the variation in the inpatient MH/SA costs per CHAMPUS eligible beneficiary. FY and CA/NCA were not significant predictors in estimating the inpatient MH/SA cost per beneficiary. The unique contributions of each of the independent variables are graphically displayed in Figure 32 below. Additionally, the figure depicts the shared variance of the independent variables.

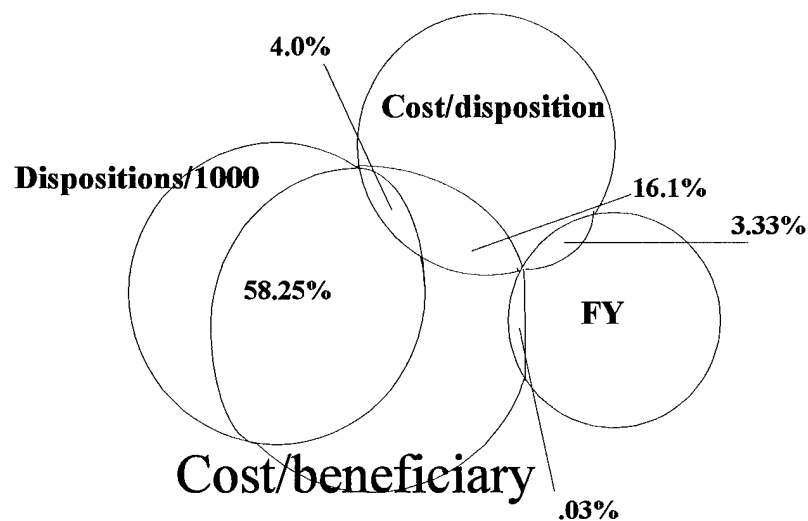


Fig. 32. Unique contribution of independent variables to the inpatient MH/SA cost/beneficiary.

Average inpatient costs per beneficiary varied among the 26 reporting areas from a low of \$8.81 to a high of \$47.16 per eligible beneficiary, but ANOVA for differences among means was not significant at the .05 level. Mean costs per beneficiaries for each of the 26 reporting areas are listed in Appendix I. However, ANOVA disclosed significant differences among age categories for the inpatient cost per beneficiary, with  $F(2,153) = 26.53, p < .0000$ . The Scheffe' test revealed significant differences between age category 35-65 and age category 0-17, and between age category 35-65 and age category 18-34 in the inpatient MH/SA cost per beneficiary. This suggests that the inpatient MH/SA cost per beneficiary tends to be significantly less for age category 35-64. Table 7 summarizes average costs per beneficiary, standard deviations, and average differences for the three age categories.

TABLE 7

INPATIENT MH/SA AVERAGE COST/BENEFICIARY BY AGE CATEGORY  
ANOVA AND SCHEFFE' TEST WITH SIGNIFICANCE LEVEL .05  
AGE GROUP 35-64 SIGNIFICANTLY DIFFERENT FROM AGES 0-17 AND 18-34

Age group	n	Mean	Standard deviation	Average difference from age group 35-64
0-17	52	\$35.09	\$20.53	\$26.13
18-34	52	\$27.20	\$24.45	\$18.24
35-64	52	\$8.96	\$6.06	-----

The residential treatment center cost per CHAMPUS eligible beneficiary averaged \$12.55 for the sample population. However, since MH/SA RTC services are primarily provided to child and adolescent patients, with more than 98 percent of total costs consumed by age category 0-17, particular attention should be given to the mean cost per beneficiary of \$35.41 and average cost per disposition of \$33,096.34 of this age category. The majority of reporting areas reported no dispositions for age category 18-34 during FYs 1993 and 1994. There were no RTC dispositions for age group 35-64 during FYS 1993 and 1994. This factor is reflected in the n size for cost/disposition, cost/bed day, and ALOS. Descriptive statistics for RTC utilization and costs are provided in Table 8.

TABLE 8

## DESCRIPTIVE STATISTICS FOR RTC UTILIZATION AND COSTS

Variable	N	Mean	Std. Dev.	Minimum	Maximum
Cost/beneficiary (total sample)	156	\$12.55	\$27.15	\$0.00	\$155.98
Ages 0-17	52	\$35.41	\$35.82	\$0.00	\$155.98
Ages 18-34	52	\$2.25	\$12.49	\$0.00	\$89.69
Ages 35-64	52	\$0.00	\$0.00	\$0.00	\$0.00
ALOS (total sample)	46	94.00	38.82	5.00	254.00
Ages 0-17	39	93.59	26.00	28.00	39.00
Ages 18-34	7	96.29	83.74	5.00	254.00
Ages 35-64	0	-----	-----	-----	-----
Dispositions/1000 (total sample)	156	0.40	0.88	0.00	5.38
Ages 0-17	52	1.16	1.2	0.00	5.38
Ages 18-34	52	0.04	0.14	0.00	0.90
Ages 35-64	52	0.00	0.00	0.00	0.00
Bed days/1000 (total sample)	156	37.35	84.05	0.00	542.00
Ages 0-17	52	106.8	114.44	0.00	542.00
Ages 18-34	52	5.78	31.91	0.00	229.00
Ages 35-64	52	0.00	0.00	0.00	0.00
Cost/bed day (total sample)	46	\$355.12	\$83.39	\$158.84	\$483.24
Ages 0-17	39	\$348.73	\$83.93	\$158.84	\$472.67
Ages 18-34	7	\$390.71	\$76.11	\$289.15	\$483.24
Ages 35-64	0	-----	-----	-----	-----
Cost/disposition (total sample)	46	\$33,848.34	\$18,176.24	\$2,385.00	\$99,372.00
Ages 0-17	39	\$33,096.33	\$13,891.26	\$9,724.00	\$66,368.67
Ages 18-34	7	\$38,038.00	\$35,093.26	\$2,385.00	\$99,372.00
Ages 35-64	0	-----	-----	-----	-----

The regression equation developed to estimate the RTC cost per CHAMPUS eligible beneficiary was statistically significant, with  $F(1, 154) = 1,965.65, p < .0000$ . The regression model yielded an  $r^2$  of .9274 and adjusted  $r^2$  of .9269. The results suggest that 92.7 percent of the variance in the RTC cost per beneficiary is accounted for by variation in bed days/1000. As bed days per 1000 beneficiaries increase, the RTC cost per beneficiary rises. None of the other independent variables were statistically significant. Figure 33 portrays the interrelationship between cost per beneficiary and bed days per 1000.

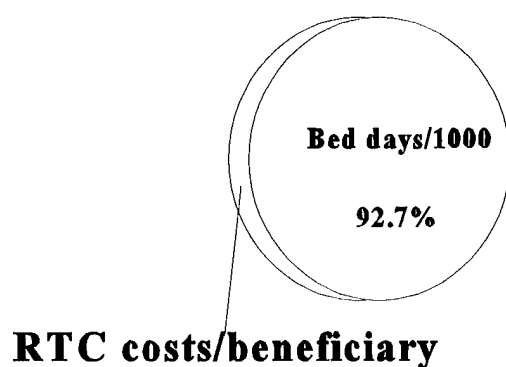


Fig. 33. Contribution of bed days/1000 to variation in the RTC MH/SA cost/beneficiary.

RTC costs per CHAMPUS eligible beneficiary ranged from a low of \$0.00 to a high of \$40.09 among the 14 catchment and 12 non-catchment reporting areas. However, ANOVA revealed no statistically significant differences among the reporting areas. RTC MH/SA costs per beneficiary for the 26 reporting areas are listed in Appendix J. The RTC average cost per

beneficiary ranged from a low of \$0.00 for ages 35-64 to a high of \$35.41 for ages 0-17.

ANOVA revealed significant differences among age categories for the RTC cost per beneficiary, with  $F(2,153) = 42.62, p < .0000$ . The Scheffé' test, at the .05 level of significance, revealed significant differences between age categories 0-17 and 18-34 and between age categories 0-17 and 35-64. The results support the hypothesis that RTC costs are concentrated in the child and adolescent population. Table 9 summarizes average costs per beneficiary, standard deviations, and average differences for the three age categories.

TABLE 9

RTC MH/SA AVERAGE COST/BENEFICIARY BY AGE CATEGORY  
ANOVA AND SCHEFFE' TEST WITH SIGNIFICANCE LEVEL .05  
AGE GROUP 0-17 SIGNIFICANTLY DIFFERENT FROM AGES 18-34 AND 35-64

Age category	n	Mean	Standard deviation	Average difference from age group 0-17
0-17	52	\$35.41	\$35.82	-----
18-34	52	\$2.24	\$12.49	\$33.16
35-64	52	\$0.00	\$0.00	35.41



## DISCUSSION

The goals of this project were to determine MH/SA utilization patterns and cost trends within Region 8 and to evaluate the feasibility of using of key management indicators to estimate the mental health and substance abuse cost per CHAMPUS eligible beneficiary. Previous GAO studies indicated that overall CHAMPUS MH/SA costs had risen rapidly between 1985 and 1989 before leveling off in 1991. This trend for moderation in the growth of MH/SA costs continued in the sample population in Region 8, with total costs actually decreasing from FY 1993 to FY 1994. Region 8 outpatient visits and government costs for the 14 CAs and 12 NCAs in the sample population declined 2.7 and 14.3 percent, respectively from FY 1993 to FY 1994. Meanwhile, inpatient dispositions and government costs declined 6.6 and 26.9 percent. Conversely, Region 8 RTC dispositions and costs for sample population increased by 40.6 percent and 28.2 percent, respectively, from FY 1993 to FY 1994.

Over the two-year period of this study, outpatient services accounted for 40 percent, inpatient services 36 percent, and RTC services 26 percent of total MH/SA expenditures for the sample population. Combined costs for inpatient and RTC services were responsible for approximately 60 percent of CHAMPUS MH/SA costs of the sample population in FYs 1993 and 1994. In comparison, the GAO reported that inpatient treatment accounted for 79 percent of CHAMPUS MH/SA costs in 1993 while German estimated that 70 percent of the MH/SA costs for the general population in 1994 were for inpatient services. The results in the sample population suggest a continuation in the trend to provide MH/SA services in less intensive treatment settings. The overall decline in CHAMPUS MH/SA costs can be attributed to

decreased utilization of services, the shift to less intensive treatment settings, increased case management and scrutiny of MH/SA services at individual MTFs, and utilization review by the CHAMPUS MH/SA contractor, HMSI.

The results support previous reports in the literature and the hypothesis that CHAMPUS MH/SA costs are largely concentrated in the child and adolescent beneficiary population. Although CHAMPUS-eligible beneficiaries aged 0-17 represented only 36 percent of the sample population, they accounted for over 64 percent of the MH/SA costs. Combined outpatient, inpatient, and RTC CHAMPUS MH/SA costs for the sample population averaged \$60.74 per CHAMPUS eligible beneficiary, ranging from \$24.99 for age category 35-64, \$59.32 for age category 18-34, to \$97.91 per beneficiary for age category 0-17. The estimated MH/SA cost per beneficiary for the sample population compares quite favorably with that reported by Taylor (1994) and Frank, McGuire, and Newhouse (1995). However, this estimate does not include expenditures for MH/SA services provided by the direct care system. Independent analysis of data obtained from the Patient Administration and Biostatistical Activity (PASBA 1995) disclosed that direct care inpatient MH/SA costs in FY 1994 attributed to CHAMPUS-eligible beneficiaries within military treatments facilities in Region 8 were approximately \$4.4 million. Additionally, approximately \$13.5 million per year in direct care MH/SA outpatient costs can be ascribed to CHAMPUS eligible beneficiaries for FYs 1993 and 1994 (Defense Medical Information Support Center 1995). Considering these additional direct care costs would add about \$35 to \$40 to the MH/SA cost per beneficiary. Still, the estimated total of roughly \$95.00 to \$100 in CHAMPUS and direct care MH/SA costs per eligible beneficiary compares favorably with industry reports of MH/SA expenses for insured populations.

The reported results have several implications and uses for DOD health care administrators as the TRICARE MCSC for Region 8 comes on-line. MH/SA utilization is not homogenous across the region, demonstrating wide variation in utilization and costs per beneficiary. However, the utilization patterns of the sample population for FYs 1993 and 1994 provide a basis for comparison with the monthly focused utilization management analysis and review reports required of the contractor. The high cost, high volume diagnoses for outpatient, inpatient, and RTC MH/SA services offer a focal point for utilization management efforts at the regional level and case management at the local level. The majority of visits and government costs are concentrated in the top five diagnoses for each component of treatment (outpatient, inpatient, RTC). With an average cost per RTC disposition in the sample population of over \$33,000, each patient admitted is a candidate for treatment planning and comprehensive case management.

Key management indicators predictive of the outpatient cost per CHAMPUS eligible beneficiary included visits per 1000 and cost/visit. Ironically, CHAMPUS outpatient mental health costs were greater within the catchment area, despite the provision of considerable outpatient services by the direct care system. Reporting area 11, a non-catchment area, was an outlier with an excessively high MH/SA outpatient cost per beneficiary and warrants more scrutinization for the wide local area variation demonstrated.

Key management indicators to track inpatient MH/SA utilization and costs per beneficiary for the sample population in Region 8 were cost/disposition and dispositions per 1000. The inpatient mental health cost per beneficiary demonstrated a statistically significant reduction in the sample population from FY 1993 to FY 1994, suggesting a continuation in the trend toward

providing MH/SA treatment in less intensive settings. The results of this project indicate that the inpatient MH/SA cost per beneficiary is greater for younger age categories of patients. Although only 36 percent of the sample beneficiary population was from age group 0-17, they accounted for over 50 percent of the dispositions and 62 percent of CHAMPUS inpatient costs. The ALOS reported by the sample population of 12.09 days per disposition was more than 25 percent greater than the 8.89 days reported by Hirsch in 1994 as part of his review of a national utilization management program covering approximately 3.4 million enrollees. The average inpatient cost of the sample population of \$4,336 per disposition and \$52.55 per outpatient visit were comparable with those reported in the literature by Levin (1992) of \$4586 and \$64.56, respectively.

Bed days per 1000 were highly predictive of the RTC cost per beneficiary of the sample population. Utilization of RTC services is almost entirely concentrated in the child and adolescent population, with age category 0-17 accounting for over 98 percent of dispositions and government costs. Because utilization varies so widely across a broad geographic region encompassing 12 states, the establishment of a regional RTC for CHAMPUS beneficiaries is contraindicated. Providing RTC services at a regional treatment center would require that many beneficiaries receive treatment far from their family support systems.

The results of this project cannot be generalized to the general population because the data represented a convenience sample gathered from Region 8 CHAMPUS catchment and non-catchment areas. Additionally, assumptions of normality and homogeneity of variance were relaxed for statistical analysis. Despite this, the results allow inferences to be made about the utilization patterns of CHAMPUS eligible beneficiaries and provide a basis for comparison for utilization under the TRICARE contractor.

Another weakness of this project, which focused on utilization and government MH/SA costs, is the inability to assess outcome and quality of care issues. Furthermore, the analysis did not identify high risk patients, individual users of MH/SA services, or cases of recidivism. It is essential to identify high risk patients for comprehensive case management to provide treatment in the most appropriate setting and insure optimal outcomes. The importance of identifying individual users of MH/SA services was articulated in *The Wall Street Journal* (Miller 1994), which reported the results of a three-year government funded survey to study mental illness. The study found that mental illness was heavily concentrated among 14 percent of the nation's population, who had three or more lifetime episodes of depression, alcoholism, or other psychiatric disorder.

Boyle and Callahan (1995) of the Hastings Center, in exploring the ethical implications of managed mental health care, state that a generic concern of any managed care benefit, is the inherent incentive to limit or deny services, deleteriously affecting the quality of care. Schlesinger (1995) points out that many HMOs rely on primary care gatekeepers, who are often not adequately trained to diagnose mental illness, to authorize access to mental health services. In analyzing the Medical Outcomes Study, a four-year longitudinal study beginning in 1986, Wells and Sturm (1995) concluded that the shift from mental health specialists to general medical providers to treat depression reduced treatment costs, but produced poorer functional outcomes. Surles (1995) contends that the initial assessment of a patient with mental illness should result in a referral to a therapist within a comprehensive provider network. Anderson and Berlant (1995) recommend, as a minimum, network coverage ratios of one individual provider per 1,000 covered members. Additionally, the distribution of network providers by discipline should fall

within the following general ranges: psychiatrists, 20 to 30 percent; Ph.D. psychologists, 20 to 30 percent; M.A.-level providers (psychologists; social workers; nurses; drug and alcohol counselors; and marriage, family, and child counselors), 40 to 60 percent.

TRICARE managed care support contracts attempt to minimize negative capitation incentives by shared risk arrangements and provisions for direct beneficiary access to mental health professionals. Mental health care financing experts Frank, McGuire, and Newhouse (1995) recommend “soft” capitation contracts, similar to the TRICARE MCSCs, in which the payer shares risk with the vendor. Additionally, TRICARE Prime allows beneficiaries direct access to network mental health providers, but integrates MH/SA services with primary care by requiring a referral from the primary care manager (PCM) after eight outpatient visits. Ideally, instead of fostering underutilization, the TRICARE contracts should improve access, promote preventive services, and improve outcomes by managing comprehensive health care across an integrated delivery system.

The Region 8 MCSC Request for Proposal (RFP) offers a starting point for quality and accountability by requiring the contractor to meet access standards and establishing prerequisites for utilization and quality management. In addition to access standards, the Lead Agent plans to work with the MCSC contractor to establish outcome and prevention standards, particularly for the at-risk child and adolescent population. Industry standards for behavioral health care include evaluation of the following domains: access, patient satisfaction, quality, and outcomes (Theis et al. 1995).

## **CONCLUSIONS AND RECOMMENDATIONS**

The results of this project provide a baseline for MH/SA utilization by the beneficiary population prior to the initiation of the TRICARE MCSC in Region 8. DoD provided the offerors for the TRICARE managed care support contracts CHAMPUS cost and utilization data for FYs 1992-1994 and the data collection period immediately prior to the start of health care services. The vendors used this information to project utilization and cost trends over the 5-year contract period and, subsequently, make their bid for the TRICARE contract (Region 8 TRICARE Conference 1995). The present project provides MH/SA utilization and cost trends for the CHAMPUS eligible population for FYs 1993 and 1994.

Inpatient and RTC utilization and costs were largely concentrated in the child and adolescent population. The top five diagnoses in each treatment setting, whether outpatient, inpatient, or RTC, accounted for almost 90 percent of utilization and costs. These high cost, high volume diagnoses merit increased emphasis for comprehensive case management, particularly for the high risk 0-17 age category of beneficiaries.

This project supports the use of key management indicators to estimate the MH/SA cost per CHAMPUS eligible beneficiary. These indicators will become valuable parameters to gage the performances of both the direct care system, which provides three-fourths of DoD medical care, and the TRICARE managed care support contractor. Additionally, it is essential for DoD healthcare administrators to benchmark the performance of the MHSS against industry standards.

Utilization of MH/SA services varied widely among the 14 catchment and 12 non-catchment areas sampled within Region 8. The RHSO office is working diligently to establish an

integrated delivery and information system across the region. The establishment of an integrated system provides the opportunity to profile practice patterns, establish practice guidelines, reduce variation, evaluate the appropriateness of care, assess quality and outcomes, and serve as a feedback loop for quality improvement (Pope 1996; White and Newman 1996).

Future research should address the weaknesses of this project. The use of a convenience sample within a federal healthcare system limits generalizing the results of the present study beyond the sample population. Furthermore, individual users of MH/SA services were not identified and quality of care issues were not addressed. As a follow-up to this study, quantification of utilization and costs in the direct care system is pertinent. Implementation of the ambulatory data system should allow for a more accurate assessment of outpatient utilization in the direct care system.

The quantification and monitoring of key management indicators are imperative for healthcare administrators in this era of rapid change in the MHSS if they are to effectively manage their own facilities and maintain adequate surveillance of the TRICARE contractor. Reliable data on costs per beneficiary are required to establish accurate capitation rates for the managed care support contracts. By quantifying demand and defining mental health treatment resources in the region, the Lead Agent staff will be prepared to establish an integrated network of mental health services with the appropriate number and mix of providers in the direct care system and the TRICARE network. However, the Lead Agent and the Regional Health Services Operations office will be tasked through its surveillance plan to do more than contain the cost of MH/SA treatment. In addition, the Lead Agent must work with the MCSCS contractor to develop a comprehensive healthcare network with MH/SA and social services integrated into a primary care



system dedicated to improved access, quality, and accountability. The RHSO office should seek and expect value in healthcare services, both from the direct care system and the TRICARE contractor. The future of the MHSS depends on achieving this expectation.

## **APPENDICES**

## APPENDIX A

### TRICARE UNIFORM BENEFIT MATRIX (Federal Register 1995)

SERVICES	TRICARE PRIME	TRICARE EXTRA	TRICARE STANDARD
<b>Annual enrollment fee</b>	Active Duty (AD) family members (FMs): none  Retirees (RETs), their FMs/others: \$230/person or \$460/family	none	none
<b>Annual deductible</b>	Only if exercise Point-of-Service (POS) option	AD FMs E-4 & below: \$50/person or \$100/family per FY. AD FMs, E-5 & above, non-AD beneficiaries: \$150/person or \$300/family per FY	same as EXTRA
<b>Outpatient mental health:</b> one hour of therapy, no more than 2 times each week when medically necessary.  NOTE: Beneficiaries enrolled in PRIME may seek mental health care from a network mental health provider, for up to 8 visits, without a referral from their primary care manager (PCM) manager, but mental health provider must obtain prior authorization from Health Care Finder before providing services.	Individual visits: AD FM E-4 and below: \$10 copayment  E-5 & above: \$20 copayment  Retirees & others: \$25 copayment.  Group visits: E-4 & below: \$6 copayment  E-4 & above: \$12 copayment  Retirees & others: \$30 copayment	Cost share after deductible has been satisfied:  AD FMs: 15% of contracted fee.  Retirees & others: 20% of contracted fee.	Cost share after deductible has been satisfied:  AD FMs: 20% of CHAMPUS allowable  Retirees & others: 25% of CHAMPUS allowable charges

SERVICES	TRICARE PRIME	TRICARE EXTRA	TRICARE STANDARD
<b>Partial hospitalization for alcoholism treatment</b> Up to 21 days of rehabilitative treatment on a limited hour per day basis. Does not count toward the limits for days of the mental health inpatient benefit.	AD FMs: \$20 per day copayment or \$25 minimum charge  Retirees & others: \$40 per day	Active Duty FMs: Cost-share after deductible has been satisfied: 15% of contracted fee  Retirees & others: 20% of contracted fee	Active Duty FMs: cost-share after deductible has been satisfied: 20% of contracted fee  Retirees & others: 25% of cost-share of the CHAMPUS allowable
<b>Hospitalization for mental illness and substance abuse:</b> Up to 30 days per calendar year for ages 19+, up to 45 days per FY for ages less than 19, & up to 150 days per FY for RTCs (as medically necessary)	AD FMs: \$20 per day or \$25 minimum charge per admission, whichever is greater.  Retirees & others: \$40 per day copayment  No copayment or cost-share for separately billed professional charges	AD FMs: \$20 per day or \$25 minimum charge per admission, whichever is greater.  Retirees & others: 20% cost-share of contracted rate for institutional services. 20% cost-share of separately billed professional charges, based on contracted fee.  Preauthorization required	AD FMs: \$20 per day or \$25 minimum charge per admission, whichever is greater.  Retirees & others: Low Volume: lessor of 25% of billed or daily rate High Volume: 25% of hospital specific per diem rate Preauthorization required
<b>Alcoholism (Inpatient)</b> 7 days for detoxification and 21 days for rehabilitation per 365 days. Maximum of one rehabilitation program per year & 3 per lifetime. Detoxification & rehabilitation days count toward TRICARE limit for inpatient mental health benefits.	Same as above	Same as above	Same as above
<b>Partial Hospitalization (mental health)</b> Up to 60 days per FY (minimum of 3 hours per day of therapeutic services)	Same as above	Same as above	Same as above

## APPENDIX B

### COMMON PROCEDURAL TERMINOLOGY, 4TH EDITION, (CPT-4) MH/SA PROCEDURES CODES (Kirschner et al. 1994)

PROCEDURE CODE	DESCRIPTION (Abbreviated)
90801	Psychiatric diagnostic interview examination including history, mental status, or disposition
90825	Psychiatric evaluation of records, reports, and tests for medical diagnostic purposes
90830	Psychological testing with interpretation and report, per hour
90841	Individual medical psychotherapy by a physician, time unspecified
90842	Individual medical psychotherapy, approximately 75-80 minutes
90843	Individual psychotherapy, approximately 20-30 minutes
90844	Individual psychotherapy, approximately 45-50 minutes
90845	Medical psychoanalysis
90846	Family medical psychotherapy (without the patient present)
90847	Family medical psychotherapy (conjoint psychotherapy) by a physician
90849	Multiple-family group medical psychotherapy by a physician
90853	Group medical psychotherapy (other than of a multiple-family group) by a physician
90855	Interactive individual medical psychotherapy
90857	Interactive group medical psychotherapy
90862	Pharmacologic management
90870	Electroconvulsive therapy; single seizure
90871	Electroconvulsive therapy; multiple seizures, per day
90880	Medical hypnotherapy
90887	Interpretation or explanation of results of psychiatric or other medical exams and procedures to family, or advising them how to assist patient
90899	Preparation of report of patient's psychiatric status, history, treatment, or progress
90900	Biofeedback

## APPENDIX C

### MH/SA DIAGNOSIS RELATED GROUPS (DRG's) [Defense Medical Information System (DMIS) 1993]

<b>DRG</b>	<b>DESCRIPTION (Abbreviated)</b>
424	Operating room procedure with principal diagnosis of mental illness
425	Acute adjustment reaction & disturbance of psychosocial dysfunction
426	Depressive neuroses
427	Neuroses except depressive
428	Disorders of personality and impulse control
429	Organic disturbances and mental retardation
430	Psychoses
431	Childhood mental disorders
432	Other mental disorder diagnoses
433	Alcohol/drug abuse or dependence, left against medical advice
434	Alcohol/drug abuse or dependence, detoxification or other symptoms treated, with complicating conditions
435	Alcohol/drug abuse or dependence, detoxification or other symptoms treated, without complicating conditions
436	Alcohol/drug dependence with rehabilitation therapy
437	Alcohol/drug abuse/dependence, combined rehabilitation and detoxification therapy
900	Alcohol/drug abuse/dependence, detox or other symptoms treated, age $\leq 21$ , without complicating conditions
901	Alcohol/drug abuse/dependence, detox or other symptoms treated, age $> 21$ , without complicating conditions

## APPENDIX D

### OPERATIONAL DEFINITIONS

<i><b>VARIABLE</b></i>	<i><b>OPERATIONAL DEFINITIONS</b></i>	<i><b>SCALE</b></i>
<u><b>Dependent</b></u> average mental health cost per beneficiary	total government paid MH/SA costs in dollars for beneficiaries for either outpatient, inpatient, or RTC services divided by the number of CHAMPUS eligible beneficiaries in the reporting area (catchment area or non-catchment area)	continuous \$
<u><b>Independent</b></u> fiscal year (FY)	fiscal year in which mental health/substance (MH/SA) treatment was provided	categorical: 0 = FY 1993 1 = FY 1994
age category of CHAMPUS-eligible beneficiary	total number of CHAMPUS beneficiaries reported by RAPS as eligible for treatment in each of the 14 MTF catchment areas or 12 non-catchment areas in Region 8, broken down into 3 categorically exhaustive, mutually exclusive groups:  (1) CHAMPUS-eligible beneficiaries aged 0 to 17 (2) CHAMPUS-eligible beneficiaries between the ages of 18 and 34 (3) CHAMPUS-eligible beneficiaries between the ages of 35 and 64	number of beneficiaries in age group: continuous  age group: categorical: binary coded 1 present 0 otherwise

<i>VARIABLE</i>	<i>OPERATIONAL DEFINITIONS</i>	<i>SCALE</i>																														
Region 8 catchment /non-catchment reporting area	Area in which CHAMPUS services were provided, further described below	categorical:																														
a. Non-catchment areas (NCAs): 12	Colorado (CO); Iowa (IA); Idaho (ID); Kansas (KS); Minnesota (MN); Missouri (MO); Montana (MT); North Dakota (ND); Nebraska (NE); South Dakota (SD); Utah (UT); Wyoming (WY)	0 = non-catchment area																														
b. Catchment areas (CAs): 14	Ft. Riley, KS; Ft. Leavenworth, KS; Ft. Carson, CO; Fitzsimons Army Medical Center, CO; Ft. Leonard Wood, MO; Air Force Academy, CO; Offutt Air Force Base (AFB), NE; Hill AFB, UT; Minot AFB, ND; Mt. Home AFB, ID; Ellsworth AFB, SD; F.E. Warren AFB, WY; Grand Forks AFB, ND; Whiteman AFB, MO	1 = catchment area																														
Reporting areas: (26)	<table><tr><td><u>NCAs</u></td><td><u>CAs</u></td></tr><tr><td>1 = CO</td><td>13 = Fitzsimons Army Medical Center</td></tr><tr><td>2 = ID</td><td>14 = Fort Carson, CO</td></tr><tr><td>3 = IA</td><td>15 = AF Academy, CO</td></tr><tr><td>4 = KS</td><td>16 = Mountain Home, ID</td></tr><tr><td>5 = MN</td><td>17 = Fort Riley, KS</td></tr><tr><td>6 = MO</td><td>18 = Fort Leavenworth, KS</td></tr><tr><td>7 = MT</td><td>19 = Fort Leonard Wood, MO</td></tr><tr><td>8 = NE</td><td>20 = Whiteman AFB, MO</td></tr><tr><td>9 = ND</td><td>21 = Offutt AFB, NE</td></tr><tr><td>10 = SD</td><td>22 = Grand Forks AFB, ND</td></tr><tr><td>11 = UT</td><td>23 = Minot AFB, ND</td></tr><tr><td>12 = WY</td><td>24 = Ellsworth AFB, SD</td></tr><tr><td></td><td>25 = Hill AFB, UT</td></tr><tr><td></td><td>26 = F.E. Warren AFB, WY</td></tr></table>	<u>NCAs</u>	<u>CAs</u>	1 = CO	13 = Fitzsimons Army Medical Center	2 = ID	14 = Fort Carson, CO	3 = IA	15 = AF Academy, CO	4 = KS	16 = Mountain Home, ID	5 = MN	17 = Fort Riley, KS	6 = MO	18 = Fort Leavenworth, KS	7 = MT	19 = Fort Leonard Wood, MO	8 = NE	20 = Whiteman AFB, MO	9 = ND	21 = Offutt AFB, NE	10 = SD	22 = Grand Forks AFB, ND	11 = UT	23 = Minot AFB, ND	12 = WY	24 = Ellsworth AFB, SD		25 = Hill AFB, UT		26 = F.E. Warren AFB, WY	categorical
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average length of stay (ALOS)	total number of bed days for patients discharged during the period by the total number of dispositions during the same period	continuous days																														
Average cost per inpatient disposition	total government paid inpatient costs [summation of direct (i.e., nursing, intensive care unit, surgical, anesthesiology salary, supplies, etc.) + physician salaries reported in the inpatient account] divided by the number of dispositions	continuous \$																														



<i><b>VARIABLE</b></i>	<i><b>OPERATIONAL DEFINITIONS</b></i>	<i><b>SCALE</b></i>
cost per bed day	total government paid inpatient costs divided by total bed days	continuous \$
cost/outpatient visit	total government paid outpatient costs divided by total number of outpatient visits	continuous \$
dispositions/1000 beneficiaries	total number of patients discharged with mental health DRGs during the period for inpatient treatment divided by the (total number of CHAMPUS eligible beneficiaries in the area divided by 1000)	continuous
outpatient visits/1000 beneficiaries	total number of outpatient visits with MH/SA CPT-4 codes divided by the (total number of CHAMPUS eligible beneficiaries in the area divided by 1000)	continuous
bed days/1000 beneficiaries	total number of bed days for patients discharged with mental health DRGs during the period divided by (total number of beneficiaries divided by 1000)	continuous

## APPENDIX E

### FY 93/94 OUTPATIENT UTILIZATION AND COST DATA

CODE	FY 93 VISITS	FY 93 COSTS	FY 94 VISITS	FY 94 COSTS	AVG VISITS	AVG COSTS
90801 (total)	8,119	\$604,192	8,481	\$513,891	8,300.0	\$559,041
Ages 0-17	3,939	\$309,768	4,069	\$258,995	4,004.0	\$284,382
Ages 18-34	2,018	\$148,886	2,163	\$130,110	2,090.5	\$139,498
Ages 35-64	2,162	\$145,538	2,249	\$124,786	2,205.5	\$135,162
90825 (total)	1,496	\$52,401	1,439	\$50,696	1,467.5	\$51,548
Ages 0-17	1,013	\$36,128	1,030	\$37,165	1,021.5	\$36,647
Ages 18-34	219	\$8,786	223	\$7,653	221.0	\$8,219
Ages 35-64	264	\$7,487	186	\$5,878	225.0	\$6,682
90830 (total)	8,035	\$504,627	7,559	\$377,420	7,797.0	\$441,024
Ages 0-17	5,829	\$373,708	5,542	\$283,074	5,685.5	\$328,391
Ages 18-34	1,204	\$71,824	1,165	\$52,898	1,184.5	\$62,361
Ages 35-64	1,002	\$59,095	852	\$41,449	927.0	\$50,218
90841 (total)	151	\$17,125	206	\$22,411	178.5	\$19,768
Ages 0-17	24	\$2,251	43	\$4,058	33.5	\$3,154
Ages 18-34	29	\$3,198	19	\$1,660	24.0	\$2,429
Ages 35-64	98	\$11,677	144	\$16,693	121.0	\$14,185
90842 (total)	0	\$0	0	\$0	0.0	\$0
Ages 0-17	0	\$0	0	\$0	0.0	\$0
Ages 18-34	0	\$0	0	\$0	0.0	\$0
Ages 35-64	0	\$0	0	\$0	0.0	\$0
90843 (total)	13,820	\$664,083	14,058	\$516,108	13,939.0	\$590,096
Ages 0-17	4,930	\$283,334	4,706	\$196,865	4,818.0	\$240,100
Ages 18-34	2,724	\$133,744	2,939	\$114,106	2,831.5	\$123,925
Ages 35-64	6,166	\$247,005	6,413	\$205,137	6,289.5	\$226,071

<b>CODE</b>	<b>FY 93 VISITS</b>	<b>FY 93 COSTS</b>	<b>FY 94 VISITS</b>	<b>FY 94 COSTS</b>	<b>AVG VISITS</b>	<b>AVG COSTS</b>
90844 (total)	129,702	\$7,497,018	123,201	\$6,258,827	126,451.5	\$6,877,922
Ages 0-17	45,029	\$2,682,434	44,224	\$2,247,380	44,626.5	\$2,464,100
Ages 18-34	32,181	\$1,877,194	28,659	\$1,523,840	30,420.0	\$1,700,517
Ages 35-64	52,492	\$2,937,390	50,318	\$2,487,608	51,405.0	\$2,712,499
90845 (total)	1	\$418	155	\$20,688	78.0	\$10,553
Ages 0-17	1	\$207	54	\$10,700	27.5	\$5,454
Ages 18-34	0	\$0	50	\$4,946	25.0	\$2,473
Ages 35-64	1	\$211	51	\$5,042	25.5	\$2,627
90846 (total)	0	\$0	16	\$1,248	8.0	\$624
Ages 0-17	0	\$0	14	\$1,088	7.0	\$544
Ages 18-34	0	\$0	0	\$0	0.0	\$0
Ages 35-64	0	\$0	2	\$160	1.0	\$80
90847 (total)	17,811	\$1,319,474	19,900	\$1,374,745	18,855.5	\$1,347,109
Ages 0-17	10,481	\$817,709	11,679	\$805,027	11,080.0	\$811,368
Ages 18-34	3,560	\$253,329	3,813	\$286,375	3,686.5	\$269,852
Ages 35-64	3,770	\$248,436	4,408	\$283,343	4,089.0	\$265,889
90849 (total)	62	\$2,504	98	\$5,731	80.0	\$4,117
Ages 0-17	22	\$862	71	\$3,334	46.5	\$2,098
Ages 18-34	32	\$1,394	11	\$1,328	21.5	\$1,361
Ages 35-64	8	\$247	16	\$1,069	12.0	\$658
90853 (total)	13,499	\$463,953	10,991	\$390,984	12,245.0	\$427,468
Ages 0-17	5,373	\$195,702	4,636	\$179,155	5,004.5	\$187,428
Ages 18-34	2,720	\$100,841	1,855	\$63,798	2,287.5	\$82,320
Ages 35-64	5,406	\$167,410	4,500	\$148,031	4,953.0	\$157,721
90855 (total)	10	\$1,545	49	\$3,940	29.5	\$2,742
Ages 0-17	8	\$1,534	24	\$2,415	16.0	\$1,975

<b>CODE</b>	<b>FY 93 VISITS</b>	<b>FY 93 COSTS</b>	<b>FY 94 VISITS</b>	<b>FY 94 COSTS</b>	<b>AVG VISITS</b>	<b>AVG COSTS</b>
Ages 18-34	0	\$0	15	\$942	7.5	\$471
Ages 35-64	2	\$10	10	\$583	6.0	\$297
90857 (total)	3	\$20	7	\$195	5.0	\$108
Ages 0-17	0	\$0	2	\$46	1.0	\$23
Ages 18-34	0	\$0	1	\$40	0.5	\$20
Ages 35-64	3	\$20	4	\$109	3.5	\$65
90862 (total)	6,806	\$165,968	8,732	\$168,317	7,769.0	\$167,142
Ages 0-17	1,763	\$54,952	2,464	\$52,886	2,113.5	\$53,919
Ages 18-34	1,605	\$38,493	2,029	\$40,700	1,817.0	\$39,597
Ages 35-64	3,438	\$72,523	4,239	\$74,730	3,838.5	\$73,627
90870 (total)	113	\$41,343	120	\$28,240	116.5	\$34,791
Ages 0-17	8	\$536	0	\$0	4.0	\$268
Ages 18-34	19	\$10,551	32	\$7,300	25.5	\$8,926
Ages 35-64	86	\$30,255	88	\$20,939	87.0	\$25,597
90871 (total)	3	\$1,733	0	\$0	1.5	\$867
Ages 0-17	0	\$0	0	\$0	0.0	\$0
Ages 18-34	2	\$1,045	0	\$0	1.0	\$523
Ages 35-64	1	\$688	0	\$0	1.0	\$344
90880 (total)	4	\$170	4	\$222	4.0	\$196
Ages 0-17	4	\$170	1	\$116	2.5	\$143
Ages 18-34	0	\$0	3	\$106	1.5	\$53
Ages 35-64	0	\$0	0	\$0	0.0	\$0
90887 (total)	3,342	\$184,418	3,919	\$180,104	3,630.5	\$182,261
Ages 0-17	2,695	\$150,909	3,075	\$141,537	2,885.0	\$146,223
Ages 18-34	364	\$19,490	402	\$18,931	383.0	\$19,211
Ages 35-64	283	\$14,019	442	\$19,636	362.5	\$16,828

<b>CODE</b>	<b>FY 93 VISITS</b>	<b>FY 93 COSTS</b>	<b>FY 94 VISITS</b>	<b>FY 94 COSTS</b>	<b>AVG VISITS</b>	<b>AVG COSTS</b>
90899 (total)	3,942	\$152,719	2,424	\$106,623	3,183.0	\$129,671
Ages 0-17	2,248	\$70,033	484	\$45,993	1,366.0	\$58,013
Ages 18-34	765	\$24,774	518	\$20,396	641.5	\$22,585
Ages 35-64	929	\$57,912	1,422	\$40,235	1,175.5	\$49,073
90900 (total)	42	\$1,352	105	\$2,989	73.5	\$2,170
Ages 0-17	0	\$0	0	\$0	0.0	\$0
Ages 18-34	9	\$422	20	\$644	14.5	\$533
Ages 35-64	33	\$930	85	\$2,345	59.0	\$1,638
<b>TOTAL</b>	206,960	\$11,675,063	201,447	\$10,022,131	204,203.5	\$10,848,597
Ages 0-17	83,367	\$4,980,238	82,104	\$4,268,745	82,735.5	\$4,624,491
Ages 18-34	47,451	\$2,693,971	43,916	\$2,275,773	45,683.5	\$2,484,872
Ages 35-64	76,142	\$4,000,854	75,427	\$3,477,613	75,784.5	\$3,739,233

# **FY 1993 NCA CHAMPUS OUTPATIENT MH/SA UTILIZATION DATA**

Reporting Area	POP	SERVICES	VISITS	GOVT PAID	COST/VISIT	VISITS/1000	COST/BENEFICIARY
1	8649	4029	3850	\$211,853	\$55.03	445.14	\$24.49
0-17	1633	1393	1275	\$75,608	\$59.30	780.77	\$46.30
18-34	1108	799	782	\$43,555	\$55.70	705.78	\$39.31
35-64	5908	1837	1793	\$92,690	\$51.70	303.49	\$15.69
2	15612	5501	5156	\$271,670	\$52.69	330.26	\$17.40
0-17	4146	2228	1971	\$111,666	\$56.65	475.40	\$26.93
18-34	2477	1238	1179	\$63,712	\$54.04	475.98	\$25.72
35-64	8989	2035	2006	\$96,293	\$48.00	223.16	\$10.71
3	16571	3600	3149	\$170,364	\$54.10	190.03	\$10.28
0-17	4278	1373	1194	\$64,724	\$54.21	279.10	\$15.13
18-34	2506	779	691	\$39,143	\$56.65	275.74	\$15.62
35-64	9787	1448	1264	\$66,497	\$52.61	129.15	\$6.79
4	30170	5574	4722	\$288,776	\$61.16	156.51	\$9.57
0-17	9960	1957	1454	\$110,194	\$75.79	145.98	\$11.06
18-34	5394	1061	918	\$60,664	\$66.08	170.19	\$11.25
35-64	14816	2556	2350	\$117,918	\$50.18	158.61	\$7.96
5	24828	5958	5690	\$311,160	\$54.69	229.18	\$12.53
0-17	6009	2503	2341	\$133,829	\$57.17	389.58	\$22.27
18-34	3254	1076	1043	\$62,577	\$60.00	320.53	\$19.23
35-64	15565	2379	2306	\$114,754	\$49.76	148.15	\$7.37
6	30402	4323	4014	\$264,072	\$65.79	132.03	\$8.69
0-17	6657	1297	1188	\$83,031	\$69.89	178.46	\$12.47
18-34	4038	1053	968	\$63,693	\$65.80	239.72	\$15.77
35-64	19707	1973	1858	\$117,348	\$63.16	94.28	\$5.95
7	20078	3119	2962	\$158,172	\$53.40	147.52	\$7.88
0-17	7136	1201	1117	\$64,115	\$57.40	156.53	\$8.98
18-34	3886	479	416	\$28,767	\$69.15	107.05	\$7.40
35-64	9056	1439	1429	\$65,291	\$45.69	157.80	\$7.21
8	7246	1606	1372	\$73,957	\$53.90	189.35	\$10.21
0-17	1674	732	593	\$36,661	\$61.82	354.24	\$21.90
18-34	976	294	274	\$14,595	\$53.27	280.74	\$14.95
35-64	4596	580	505	\$22,701	\$44.95	109.88	\$4.94
9	3687	2511	2473	\$96,449	\$39.00	670.74	\$26.16
0-17	1068	1377	1384	\$42,537	\$30.73	1295.88	\$39.83
18-34	560	751	747	\$35,370	\$47.35	1333.93	\$63.16
35-64	2059	383	342	\$18,542	\$54.22	166.10	\$9.01
10	5354	1064	953	\$49,693	\$52.14	178.00	\$9.28
0-17	1502	513	461	\$25,118	\$54.49	306.92	\$16.72
18-34	861	156	122	\$7,988	\$65.47	141.70	\$9.28
35-64	2991	395	370	\$16,587	\$44.83	123.70	\$5.55
11	6563	20247	18816	\$1,002,670	\$53.29	2866.98	\$152.78
0-17	2220	8479	7314	\$432,813	\$59.18	3294.59	\$194.96
18-34	1079	4919	4763	\$242,459	\$50.90	4414.27	\$224.71
35-64	3264	6849	6739	\$327,398	\$48.58	2064.64	\$100.31
12	3735	560	440	\$26,561	\$60.37	117.80	\$7.11
0-17	905	198	166	\$10,261	\$61.81	183.43	\$11.34
18-34	510	175	112	\$8,684	\$77.53	219.61	\$17.03
35-64	2320	187	162	\$7,616	\$47.01	69.83	\$3.28
TOTALS	172895	58092	53597	\$2,925,396	\$54.58	310.00	\$16.92
0-17	47188	23251	20458	\$1,190,555	\$58.20	433.54	\$25.23
18-34	26649	12780	12015	\$671,206	\$55.86	450.86	\$25.19
35-64	99058	22061	21124	\$1,063,635	\$50.35	213.25	\$10.74

# **FY 1993 CA CHAMPUS OUTPATIENT MH/SA UTILIZATION DATA**

Reporting Area	POP	SERVICES	VISITS	GOVT PAID	COST/MSIT	VISITS/1000	COST/BENEFICIARY
13	42302	23225	22922	\$1,248,680	\$54.48	541.87	\$29.52
0-17	11759	9607	9463	\$509,761	\$53.87	804.75	\$43.35
18-34	6998	4002	3970	\$220,537	\$55.55	567.30	\$31.51
35-64	23545	9616	9489	\$518,382	\$54.63	403.02	\$22.02
14	56805	32756	30806	\$1,979,297	\$64.25	542.31	\$34.84
0-17	24217	14303	13042	\$949,990	\$72.84	538.55	\$39.23
18-34	13348	7248	6831	\$417,232	\$61.08	511.76	\$31.26
35-64	19240	11205	10833	\$612,075	\$55.98	568.24	\$31.81
15	30047	21614	21012	\$1,201,423	\$57.18	699.30	\$39.98
0-17	10484	8841	8338	\$508,882	\$61.03	795.31	\$48.54
18-34	5204	3898	3848	\$213,016	\$55.36	739.43	\$40.93
35-64	14359	8875	8826	\$479,526	\$54.33	614.67	\$33.40
16	10188	2338	2114	\$130,793	\$61.87	207.50	\$12.84
0-17	4506	1121	914	\$64,424	\$70.49	202.84	\$14.30
18-34	2223	309	297	\$18,848	\$63.46	133.60	\$8.48
35-64	3459	908	903	\$47,521	\$52.63	261.06	\$13.74
17	28387	12490	12048	\$671,644	\$55.75	424.42	\$23.66
0-17	14317	5232	4994	\$278,582	\$55.78	348.82	\$19.46
18-34	7582	3691	3568	\$222,585	\$62.38	470.59	\$29.36
35-64	6488	3567	3486	\$170,477	\$48.90	537.30	\$26.28
18	27175	11001	9395	\$602,833	\$64.17	345.72	\$22.18
0-17	9742	4800	3855	\$273,001	\$70.82	395.71	\$28.02
18-34	4446	1943	1718	\$103,965	\$60.51	386.41	\$23.38
35-64	12987	4258	3822	\$225,868	\$59.10	294.29	\$17.39
19	19908	2735	2355	\$129,355	\$54.93	118.29	\$6.50
0-17	8620	1544	1189	\$72,129	\$60.66	137.94	\$8.37
18-34	4426	479	456	\$24,022	\$52.68	103.03	\$5.43
35-64	6862	712	710	\$33,204	\$46.77	103.47	\$4.84
20	9793	2705	2456	\$132,928	\$54.12	250.79	\$13.57
0-17	4124	1202	1080	\$57,513	\$53.25	261.88	\$13.95
18-34	2101	752	680	\$39,665	\$58.33	323.66	\$18.88
35-64	3568	751	696	\$35,751	\$51.37	195.07	\$10.02
21	38574	20252	18807	\$1,002,775	\$53.32	487.56	\$26.00
0-17	15362	8484	7314	\$432,812	\$59.18	476.11	\$28.17
18-34	7821	4919	4754	\$242,565	\$51.02	607.85	\$31.01
35-64	15391	6849	6739	\$327,398	\$48.58	437.85	\$21.27
22	10539	2511	2462	\$96,450	\$39.18	233.61	\$9.15
0-17	5468	1377	1374	\$42,537	\$30.96	251.28	\$7.78
18-34	2886	751	747	\$35,370	\$47.35	258.84	\$12.26
35-64	2185	383	341	\$18,543	\$54.38	156.06	\$8.49
23	9413	4425	4184	\$271,753	\$64.95	444.49	\$28.87
0-17	4898	2077	1948	\$129,491	\$66.47	397.71	\$26.44
18-34	2660	1607	1547	\$97,811	\$63.23	581.58	\$36.77
35-64	1855	741	689	\$44,451	\$64.52	371.43	\$23.96
24	15487	4593	4329	\$208,645	\$48.20	279.52	\$13.47
0-17	7453	1875	1716	\$91,168	\$53.13	230.24	\$12.23
18-34	3730	1328	1274	\$59,029	\$46.33	341.55	\$15.83
35-64	4304	1390	1339	\$58,448	\$43.65	311.11	\$13.58
25	26805	15111	14133	\$762,238	\$53.93	527.25	\$28.44
0-17	10486	5634	5144	\$267,861	\$52.07	490.56	\$25.54
18-34	5116	4315	4097	\$232,365	\$56.72	800.82	\$45.42
35-64	11203	5162	4892	\$262,012	\$53.56	436.67	\$23.39
26	10314	2467	2405	\$124,124	\$51.61	233.18	\$12.03
0-17	4214	773	741	\$34,638	\$46.74	175.84	\$8.22
18-34	2414	679	676	\$38,255	\$56.59	280.03	\$15.85
35-64	3686	1015	988	\$51,232	\$51.85	268.04	\$13.90
TOTALS	335737	158223	149428	\$8,562,937	\$57.30	445.07	\$25.50
0-17	135650	66870	61112	\$3,712,787	\$60.75	450.51	\$27.37
18-34	70965	35921	34463	\$1,965,262	\$57.03	485.70	\$27.70
35-64	129132	55432	53853	\$2,884,888	\$53.57	417.04	\$22.34

# **FY 1994 NCA CHAMPUS OUTPATIENT MH/SA UTILIZATION DATA**

Reporting Area	POP	SERVICES	VISITS	GOVT PAID	COST/MSIT	VISITS/1000	COST/BENEFICIARY
1	8753	3212	3063	\$144,751	\$47.26	349.94	\$16.54
0-17	1769	1162	1027	\$55,435	\$53.98	580.55	\$31.34
18-34	1053	391	396	\$19,629	\$49.57	376.07	\$18.64
35-64	5931	1659	1640	\$69,687	\$42.49	276.51	\$11.75
2	17235	7089	6696	\$348,449	\$52.04	388.51	\$20.22
0-17	4648	3201	2908	\$161,703	\$55.61	625.65	\$34.79
18-34	2533	1237	1171	\$66,625	\$56.90	462.30	\$26.30
35-64	10054	2651	2617	\$120,122	\$45.90	260.29	\$11.95
3	16521	3665	3238	\$155,001	\$47.87	195.99	\$9.38
0-17	4603	1407	1235	\$60,309	\$48.83	268.30	\$13.10
18-34	2344	677	608	\$30,915	\$50.85	259.39	\$13.19
35-64	9574	1581	1395	\$63,777	\$45.72	145.71	\$6.66
4	27453	5343	4526	\$242,679	\$53.62	164.86	\$8.84
0-17	8631	1614	1160	\$77,281	\$66.62	134.40	\$8.95
18-34	4460	868	734	\$45,330	\$61.76	164.57	\$10.16
35-64	14362	2861	2632	\$120,069	\$45.62	183.26	\$8.36
5	24545	5778	5603	\$260,818	\$46.55	228.27	\$10.63
0-17	6236	2649	2585	\$126,479	\$48.93	414.53	\$20.28
18-34	3164	994	975	\$47,472	\$48.69	308.15	\$15.00
35-64	15145	2135	2043	\$86,867	\$42.52	134.90	\$5.74
6	30690	3465	3291	\$200,265	\$60.85	107.23	\$6.53
0-17	7153	1107	1041	\$70,671	\$67.89	145.53	\$9.88
18-34	3875	754	702	\$44,311	\$63.12	181.16	\$11.44
35-64	19662	1604	1548	\$85,283	\$55.09	78.73	\$4.34
7	19923	3764	3622	\$177,839	\$49.10	181.80	\$8.93
0-17	7121	1453	1403	\$69,672	\$49.66	197.02	\$9.78
18-34	3727	681	626	\$33,506	\$53.52	167.96	\$8.99
35-64	9075	1630	1593	\$74,661	\$46.87	175.54	\$8.23
8	7205	2049	1949	\$83,754	\$42.97	270.51	\$11.62
0-17	1808	806	768	\$36,130	\$47.04	424.78	\$19.98
18-34	914	401	384	\$20,140	\$52.45	420.13	\$22.04
35-64	4483	842	797	\$27,484	\$34.48	177.78	\$6.13
9	3734	2399	2249	\$81,820	\$36.38	602.30	\$21.91
0-17	1066	701	684	\$27,440	\$40.12	641.65	\$25.74
18-34	532	1083	967	\$39,025	\$40.36	1817.67	\$73.36
35-64	2136	615	598	\$15,355	\$25.68	279.96	\$7.19
10	5328	1367	1248	\$56,748	\$45.47	234.23	\$10.65
0-17	1595	594	526	\$25,475	\$48.43	329.78	\$15.97
18-34	781	225	219	\$9,908	\$45.24	280.41	\$12.69
35-64	2952	548	503	\$21,365	\$42.48	170.39	\$7.24
11	6938	20260	19231	\$912,892	\$47.47	2771.84	\$131.58
0-17	2304	8895	8152	\$422,455	\$51.82	3538.19	\$183.36
18-34	1108	4520	4396	\$208,540	\$47.44	3967.51	\$188.21
35-64	3526	6845	6683	\$281,897	\$42.18	1895.35	\$79.95
12	3592	930	830	\$39,742	\$47.88	231.07	\$11.06
0-17	861	366	336	\$16,558	\$49.28	390.24	\$19.23
18-34	490	218	189	\$8,576	\$45.38	385.71	\$17.50
35-64	2241	346	305	\$14,608	\$47.90	136.10	\$6.52
TOTALS	171917	59321	55546	\$2,704,758	\$48.69	323.10	\$15.73
0-17	47795	23955	21825	\$1,149,607	\$52.67	456.64	\$24.05
18-34	24981	12049	11367	\$573,976	\$50.49	455.03	\$22.98
35-64	99141	23317	22354	\$981,175	\$43.89	225.48	\$9.90



# **FY 1994 CA CHAMPUS OUTPATIENT MH/SA UTILIZATION DATA**

Reporting Area	POP	SERVICES	VISITS	GOVT PAID	COST/VISIT	VISITS/1000	COST/BENEFICIARY
13	38578	20053	19948	\$1,014,642	\$50.86	517.08	\$26.30
0-17	9987	8648	8594	\$454,285	\$52.86	860.52	\$45.49
18-34	5715	2875	2865	\$148,388	\$51.79	501.31	\$25.96
35-64	22876	8530	8489	\$411,969	\$48.53	371.09	\$18.01
14	60207	29313	28155	\$1,516,348	\$53.86	467.64	\$25.19
0-17	26239	13019	12354	\$699,099	\$56.59	470.83	\$26.64
18-34	13938	6194	5976	\$325,413	\$54.45	428.76	\$23.35
35-64	20030	10100	9825	\$491,836	\$50.06	490.51	\$24.55
15	32452	22806	22329	\$1,177,608	\$52.74	688.06	\$36.29
0-17	11515	9089	8774	\$485,239	\$55.30	761.96	\$42.14
18-34	5541	4237	4168	\$230,286	\$55.25	752.21	\$41.56
35-64	15396	9480	9387	\$462,084	\$49.23	609.70	\$30.01
16	7835	1601	1490	\$92,013	\$61.75	190.17	\$11.74
0-17	3593	759	705	\$41,217	\$58.46	196.21	\$11.47
18-34	1841	345	309	\$22,175	\$71.76	167.84	\$12.04
35-64	2401	497	476	\$28,621	\$60.13	198.25	\$11.92
17	28356	11200	10886	\$451,477	\$41.47	383.90	\$15.92
0-17	14054	4199	4116	\$126,286	\$30.68	292.87	\$8.99
18-34	7559	3518	3360	\$183,705	\$54.67	444.50	\$24.30
35-64	6743	3483	3410	\$141,486	\$41.49	505.71	\$20.98
18	26809	9476	8852	\$433,971	\$49.03	330.19	\$16.19
0-17	9543	4054	3732	\$183,963	\$49.29	391.07	\$19.28
18-34	4168	1668	1591	\$76,541	\$48.11	381.72	\$18.36
35-64	13098	3754	3529	\$173,467	\$49.15	269.43	\$13.24
19	19249	2522	2321	\$115,020	\$49.56	120.58	\$5.98
0-17	8254	1313	1125	\$61,435	\$54.61	136.30	\$7.44
18-34	4175	248	247	\$11,200	\$45.34	59.16	\$2.68
35-64	6820	961	949	\$42,385	\$44.66	139.15	\$6.21
20	9830	3040	2729	\$146,707	\$53.76	277.62	\$14.92
0-17	4211	1184	980	\$58,508	\$59.70	232.72	\$13.89
18-34	2138	879	793	\$45,144	\$56.93	370.91	\$21.12
35-64	3481	977	956	\$43,065	\$45.04	274.63	\$12.37
21	37963	20268	19139	\$897,269	\$46.88	504.15	\$23.64
0-17	14555	8895	8152	\$421,796	\$51.74	560.08	\$28.98
18-34	7539	4520	4396	\$208,498	\$47.43	583.10	\$27.66
35-64	15869	6853	6591	\$266,975	\$40.51	415.34	\$16.82
22	10323	2399	2247	\$80,819	\$35.97	217.67	\$7.83
0-17	5160	701	682	\$26,439	\$38.77	132.17	\$5.12
18-34	2767	1083	967	\$39,025	\$40.36	349.48	\$14.10
35-64	2396	615	598	\$15,355	\$25.68	249.58	\$6.41
23	9823	5361	5024	\$272,930	\$54.33	511.45	\$27.78
0-17	4916	3082	2855	\$160,032	\$56.05	580.76	\$32.55
18-34	1644	1540	1464	\$77,317	\$52.81	890.51	\$47.03
35-64	3263	739	705	\$35,581	\$50.47	216.06	\$10.90
24	14489	4677	4528	\$202,613	\$44.75	312.51	\$13.98
0-17	6653	1685	1591	\$71,190	\$44.75	239.14	\$10.70
18-34	3309	1220	1191	\$55,830	\$46.88	359.93	\$16.87
35-64	4527	1772	1746	\$75,593	\$43.29	385.69	\$16.70
25	26333	12404	11766	\$606,487	\$51.55	446.82	\$23.03
0-17	10273	4380	4036	\$205,658	\$50.96	392.87	\$20.02
18-34	4961	3431	3295	\$177,710	\$53.93	664.18	\$35.82
35-64	11099	4593	4435	\$223,120	\$50.31	399.59	\$20.10
26	10368	2677	2573	\$118,893	\$46.21	248.17	\$11.47
0-17	4242	857	794	\$37,254	\$46.92	187.18	\$8.78
18-34	2439	726	704	\$36,355	\$51.64	288.64	\$14.91
35-64	3687	1094	1075	\$45,284	\$42.12	291.56	\$12.28
TOTALS	332615	147797	141987	\$7,126,796	\$50.19	426.88	\$21.43
0-17	133195	61865	58490	\$3,032,401	\$51.84	439.13	\$22.77
18-34	67734	32484	31326	\$1,637,586	\$52.28	462.49	\$24.18
35-64	131686	53448	52171	\$2,456,809	\$47.09	396.18	\$18.66

# APPENDIX F

## FY 93/94 INPATIENT UTILIZATION AND COST DATA

DRG	FY 93 DISP	FY 93 COSTS	FY 94 DISP	FY 94 COSTS	AVG DISP	AVG COSTS
424 (total)	1	\$11,124	0	\$0	0.5	\$5,562
ages 0-17	0	\$0	0	\$0	0.0	\$0
ages 18-34	0	\$0	0	\$0	0.0	\$0
ages 35-64	1	\$11,124	0	\$0	0.5	\$5,562
425 (total)	70	\$272,386	61	\$214,240	65.5	\$243,313
ages 0-17	31	\$187,010	26	\$119,154	28.5	\$153,082
ages 18-34	19	\$47,136	18	\$52,947	18.5	\$50,042
ages 35-64	20	\$38,240	17	\$42,139	18.5	\$40,190
426 (total)	253	\$976,008	206	\$677,114	229.5	\$826,561
ages 0-17	155	\$749,562	114	\$495,881	134.5	\$622,722
ages 18-34	61	\$149,450	59	\$106,697	60.0	\$128,074
ages 35-64	37	\$76,996	33	\$74,536	35.0	\$75,766
427 (total)	179	\$926,933	177	\$626,347	178.0	\$776,640
ages 0-17	119	\$731,010	98	\$426,622	108.5	\$578,816
ages 18-34	43	\$162,300	61	\$151,444	52.0	\$156,872
ages 35-64	17	\$33,623	18	\$48,281	17.5	\$40,952
428 (total)	64	\$383,884	67	\$339,988	65.5	\$361,936
ages 0-17	26	\$170,657	25	\$143,007	25.5	\$156,832
ages 18-34	18	\$87,402	24	\$106,739	21.0	\$97,071
ages 35-64	20	\$125,825	18	\$90,242	19.0	\$108,034
429 (total)	20	\$104,562	12	\$67,683	16.0	\$86,123
ages 0-17	7	\$61,707	6	\$52,337	6.5	\$57,022
ages 18-34	3	\$5,947	1	\$1,460	2.0	\$3,704
ages 35-64	10	\$36,908	5	\$13,886	7.5	\$25,397

<b>DRG</b>	<b>FY 93 DISP</b>	<b>FY 93 COSTS</b>	<b>FY 94 DISP</b>	<b>FY 94 COSTS</b>	<b>AVG DISP</b>	<b>AVG COSTS</b>
430 (total)	1199	\$6,838,502	1186	\$5,323,691	1,192.5	\$6,081,097
ages 0-17	556	\$4,030,735	544	\$2,963,419	550.0	\$3,497,077
ages 18-34	311	\$1,557,912	293	\$1,168,887	302.0	\$1,363,400
ages 35-64	332	\$1,249,855	349	\$1,191,385	340.5	\$1,220,620
431 (total)	186	\$1,543,718	179	\$992,780	182.5	\$1,268,249
ages 0-17	182	\$1,521,725	176	\$966,191	179.0	\$1,243,958
ages 18-34	3	\$21,312	2	\$22,394	2.5	\$21,853
ages 35-64	1	\$681	1	\$4,195	1.0	\$2,438
432 (total)	9	\$72,591	2	\$6,278	5.5	\$39,435
ages 0-17	3	\$22,076	0	\$0	1.5	\$11,038
ages 18-34	4	\$40,851	1	\$2,658	2.5	\$21,755
ages 35-64	2	\$9,664	1	\$3,620	1.5	\$6,642
433 (total)	5	\$6,158	1	\$1,261	3.0	\$3,710
ages 0-17	0	\$0	0	\$0	0.0	\$0
ages 18-34	3	\$3,817	0	\$0	1.5	\$1,909
ages 35-64	2	\$2,341	1	\$1,261	1.5	\$1,801
434 (total)	20	\$44,500	11	\$17,057	15.5	\$30,779
ages 0-17	0	\$0	0	\$0	0.0	\$0
ages 18-34	1	\$1,051	2	\$5,448	1.5	\$3,250
ages 35-64	19	\$43,449	9	\$11,609	14.0	\$27,529
435 (total)	0	\$0	0	\$0	0.0	\$0
ages 0-17	0	\$0	0	\$0	0.0	\$0
ages 31-34	0	\$0	0	\$0	0.0	\$0
ages 35-64	0	\$0	0	\$0	0.0	\$0
436 (total)	13	\$42,160	7	\$14,454	10.0	\$28,307
ages 0-17	3	\$6,241	1	\$3,039	2.0	\$4,730

<b>DRG</b>	<b>FY 93 DISP</b>	<b>FY 93 COSTS</b>	<b>FY 94 DISP</b>	<b>FY 94 COSTS</b>	<b>AVG DISP</b>	<b>AVG COSTS</b>
ages 18-34	3	\$15,360	2	\$6,554	2.5	\$10,957
ages 35-64	7	\$20,379	4	\$4,861	5.5	\$12,620
437 (total)	28	\$93,639	16	\$40,843	22.0	\$67,241
ages 0-17	1	\$6,047	0	\$0	0.5	\$3,024
ages 18-34	5	\$22,969	4	\$13,199	4.5	\$18,084
ages 35-64	22	\$64,623	12	\$27,644	17.0	\$46,134
900 (total)	38	\$199,971	32	\$129,102	35.0	\$164,537
ages 0-17	26	\$152,918	19	\$83,645	22.5	\$118,282
ages 18-34	12	\$47,053	13	\$45,457	12.5	\$46,255
ages 35-64	0	\$0	0	\$0	0.0	\$0
901 (total)	97	\$355,546	82	\$222,854	89.5	\$289,200
ages 0-17	0	\$0	0	\$0	0.0	\$0
ages 18-34	22	\$119,383	18	\$45,757	20.0	\$82,570
ages 35-64	22	\$119,383	64	\$177,097	69.5	\$206,630
<b>Total</b>	<b>2,182</b>	<b>\$11,871,682</b>	<b>2,039</b>	<b>\$8,673,692</b>	<b>2,110.5</b>	<b>\$10,272,687</b>
ages 0-17	1,109	\$7,639,868	1,009	\$5,253,295	1,059.0	\$6,446,582
ages 18-34	508	\$2,281,943	498	\$1,729,641	503.0	\$2,005,792
ages 35-64	565	\$1,949,871	532	\$1,690,756	548.5	\$1,820,314

# FY 1993 NCA CHAMPUS INPATIENT MH/SA UTILIZATION DATA

Reporting Area	POP	DISP	GOVT PAID	TOT BD	ALOS	COST/BD	BDs/1000	COST/DISP	DISP/1000	COST/BENEFICIARY
1	8649	32	\$108,372	336	10.47	\$317.63	38.73	\$3,324.13	3.76	\$12.30
0-17	1633	17	\$67,932	222	13.06	\$306.00	135.95	\$3,996.00	10.41	\$41.60
18-34	1108	4	\$14,861	38	9.50	\$391.08	34.30	\$3,715.25	3.61	\$13.41
35-64	5908	11	\$23,579	75	6.82	\$314.39	12.69	\$2,143.55	1.66	\$3.89
2	16612	86	\$347,838	883	11.68	\$362.86	62.88	\$4,092.18	5.44	\$22.28
0-17	4146	32	\$188,998	446	13.94	\$419.27	107.57	\$5,843.63	7.72	\$45.10
18-34	2477	21	\$97,902	217	10.33	\$451.16	87.61	\$4,662.00	8.48	\$39.52
35-64	8989	32	\$62,938	320	10.00	\$196.68	35.60	\$1,966.81	3.56	\$7.00
3	16671	87	\$271,461	882	9.81	\$314.81	62.82	\$3,120.13	6.26	\$16.38
0-17	4278	37	\$135,220	450	12.16	\$300.49	105.19	\$3,654.59	8.05	\$31.61
18-34	2506	23	\$88,452	144	6.26	\$475.36	57.46	\$2,976.17	9.18	\$27.32
35-64	9787	27	\$67,779	268	9.93	\$252.91	27.38	\$2,510.33	2.76	\$6.93
4	30170	148	\$894,386	2044	14.00	\$437.67	87.75	\$8,125.88	4.84	\$29.66
0-17	9960	59	\$486,147	1057	17.92	\$459.93	106.12	\$8,239.78	5.92	\$48.81
18-34	5394	38	\$189,662	428	11.26	\$443.14	79.35	\$4,891.11	7.04	\$35.16
35-64	14816	49	\$218,586	559	11.41	\$391.03	37.73	\$4,480.94	3.31	\$14.75
5	24828	78	\$238,238	802	10.66	\$294.66	32.40	\$3,108.87	3.08	\$9.61
0-17	6009	29	\$88,323	386	13.31	\$228.82	64.24	\$3,045.62	4.83	\$14.70
18-34	3254	21	\$80,283	176	8.38	\$456.15	54.09	\$3,823.00	6.45	\$24.67
35-64	15565	26	\$67,630	240	9.23	\$281.79	15.42	\$2,601.15	1.67	\$4.35
6	30402	173	\$948,467	2494	14.42	\$380.30	82.03	\$6,482.47	6.88	\$31.20
0-17	6657	70	\$537,615	1295	18.50	\$415.15	194.53	\$7,680.21	10.52	\$80.76
18-34	4038	47	\$212,856	548	11.66	\$368.42	135.71	\$4,528.85	11.64	\$52.71
35-64	19707	56	\$197,996	651	11.63	\$304.14	33.03	\$3,535.64	2.84	\$10.05
7	20078	89	\$266,868	834	10.48	\$322.07	46.62	\$4,009.82	4.42	\$17.77
0-17	7136	38	\$193,352	495	13.03	\$390.61	69.37	\$5,088.21	5.33	\$27.10
18-34	3886	31	\$125,963	289	9.32	\$435.86	74.37	\$4,063.32	7.08	\$32.41
35-64	9056	20	\$37,541	150	7.50	\$250.27	16.58	\$1,877.05	2.21	\$4.15
8	7248	44	\$187,109	823	18.70	\$239.60	113.68	\$4,479.76	8.07	\$27.20
0-17	1674	18	\$116,285	449	24.84	\$258.99	268.22	\$8,480.28	10.75	\$69.47
18-34	976	3	\$18,832	49	16.33	\$384.33	50.20	\$8,277.33	3.07	\$19.30
35-64	4596	23	\$61,992	325	14.13	\$190.74	70.71	\$2,695.30	5.00	\$13.49
9	3087	21	\$80,849	280	13.33	\$288.76	76.84	\$3,849.96	6.70	\$21.83
0-17	1068	14	\$44,245	190	13.57	\$232.87	177.90	\$3,160.36	13.11	\$41.43
18-34	560	1	\$2,204	27	27.00	\$81.63	48.21	\$2,204.00	1.79	\$3.94
35-64	2059	6	\$34,400	63	10.50	\$546.03	30.60	\$5,733.33	2.91	\$16.71
10	6364	21	\$106,896	337	16.06	\$311.86	82.84	\$6,004.62	3.82	\$18.83
0-17	1502	5	\$16,150	50	10.00	\$323.00	33.29	\$3,230.00	3.33	\$10.75
18-34	861	8	\$55,453	143	15.89	\$387.78	168.09	\$6,181.44	10.45	\$64.41
35-64	2991	7	\$33,492	144	20.57	\$232.58	48.14	\$4,784.57	2.34	\$11.20
11	6583	62	\$286,812	890	16.38	\$327.39	121.80	\$6,488.31	7.92	\$43.68
0-17	2220	26	\$197,673	543	20.88	\$364.04	244.59	\$7,802.81	11.71	\$89.04
18-34	1079	12	\$37,301	81	6.75	\$480.51	75.07	\$3,108.42	11.12	\$34.57
35-64	3284	14	\$50,938	176	12.57	\$289.42	53.92	\$3,638.43	4.29	\$15.61
12	8736	19	\$110,812	260	13.18	\$440.86	88.83	\$6,790.11	6.08	\$29.46
0-17	905	5	\$30,596	71	14.20	\$430.93	78.45	\$9,119.20	5.52	\$33.81
18-34	510	10	\$68,832	152	15.20	\$452.84	298.04	\$8,883.20	19.81	\$134.96
35-64	2320	4	\$10,584	27	8.75	\$392.00	11.64	\$2,646.00	1.72	\$4.56
TOTALS	172896	846	\$3,849,580	10944	12.86	\$389.67	63.30	\$4,663.42	4.89	\$22.79
0-17	47188	350	\$2,100,534	5654	16.15	\$371.51	119.82	\$6,001.53	7.42	\$44.51
18-34	26649	220	\$972,601	2292	10.42	\$424.35	86.01	\$4,420.91	8.26	\$36.50
35-64	89058	275	\$867,455	2998	10.90	\$289.34	30.27	\$3,154.38	2.78	\$8.76

# FY 1993 CA CHAMPUS INPATIENT MH/SA UTILIZATION DATA

Reporting Area	POP	DISP	GOVT PAID	TOT BD	ALOS	COST/BD	BDs/1000	COST/DISP	DISP/1000	COST/BENEFICIARY
13	42302	133	\$660,013	1878	13.60	\$248.40	44.35	\$4,710.24	3.29	\$15.37
0-17	11759	94	\$508,326	1456	15.49	\$349.13	123.82	\$5,407.72	7.99	\$43.23
18-34	6988	22	\$70,576	188	8.55	\$375.40	26.86	\$3,208.00	3.14	\$10.09
35-64	23545	22	\$71,111	232	10.55	\$306.51	9.85	\$3,232.32	0.93	\$3.02
14	68806	208	\$1,191,162	2280	10.98	\$622.44	40.14	\$5,728.89	3.88	\$20.87
0-17	24217	115	\$840,085	1685	14.65	\$498.57	69.58	\$7,305.09	4.75	\$34.69
18-34	13348	50	\$202,773	355	7.10	\$571.19	26.60	\$4,055.48	3.75	\$15.19
35-64	19240	43	\$148,294	240	5.58	\$617.89	12.47	\$3,448.70	2.23	\$7.71
15	30047	84	\$680,280	1188	14.16	\$488.04	39.67	\$6,908.10	2.80	\$19.31
0-17	10484	58	\$511,542	1010	17.41	\$506.48	96.34	\$8,819.69	5.53	\$48.79
18-34	5204	11	\$25,194	61	5.55	\$413.02	11.72	\$2,290.36	2.11	\$4.84
35-64	14359	15	\$43,544	118	7.87	\$369.02	6.22	\$2,902.93	1.04	\$3.03
16	10188	60	\$312,298	868	13.16	\$474.82	64.68	\$6,246.88	4.81	\$30.86
0-17	4506	32	\$220,557	444	13.88	\$496.75	98.54	\$6,892.41	7.10	\$48.95
18-34	2223	5	\$28,831	54	10.80	\$530.20	24.29	\$5,726.20	2.25	\$12.88
35-64	3459	13	\$63,111	160	12.31	\$394.44	46.26	\$4,854.69	3.76	\$18.25
17	28387	89	\$863,119	1617	17.04	\$440.63	63.44	\$7,338.42	3.14	\$23.81
0-17	14317	55	\$490,465	1105	20.09	\$449.29	77.18	\$9,026.64	3.84	\$34.68
18-34	7582	19	\$112,989	236	12.42	\$478.77	31.13	\$5,946.79	2.51	\$14.90
35-64	8488	15	\$43,665	176	11.73	\$248.10	27.13	\$2,911.00	2.31	\$6.73
18	27176	149	\$1,241,723	2828	17.84	\$472.60	88.71	\$8,333.71	6.48	\$46.89
0-17	9742	81	\$839,182	1702	21.01	\$493.06	174.71	\$10,360.27	8.31	\$86.14
18-34	4446	25	\$170,816	352	14.08	\$485.27	79.17	\$6,832.64	5.62	\$38.42
35-64	12987	43	\$231,725	574	13.35	\$403.70	44.20	\$5,388.95	3.31	\$17.84
19	18908	41	\$289,282	766	17.20	\$410.30	35.41	\$7,866.17	2.88	\$14.83
0-17	8620	31	\$239,495	574	18.52	\$417.24	66.59	\$7,725.65	3.60	\$27.78
18-34	4426	6	\$35,893	88	14.67	\$409.01	19.88	\$5,898.83	1.36	\$8.13
35-64	6862	4	\$13,774	43	10.75	\$320.33	6.27	\$3,443.50	0.58	\$2.01
20	9783	64	\$403,311	738	13.83	\$647.88	76.16	\$7,488.72	6.51	\$41.18
0-17	4124	19	\$146,810	262	13.79	\$559.58	63.53	\$7,716.32	4.81	\$35.55
18-34	2101	24	\$170,467	331	13.79	\$515.01	157.54	\$7,102.79	11.42	\$81.14
35-64	3568	11	\$86,234	143	13.00	\$603.03	40.08	\$7,839.45	3.08	\$24.17
21	38674	181	\$1,174,321	3599	19.88	\$328.29	83.30	\$8,487.86	4.88	\$30.44
0-17	15362	132	\$981,990	2948	22.33	\$333.10	191.90	\$7,439.32	8.59	\$63.92
18-34	7821	22	\$89,149	325	14.77	\$274.30	41.55	\$4,052.23	2.81	\$11.40
35-64	15391	27	\$103,182	326	12.07	\$316.51	21.18	\$3,821.56	1.75	\$6.70
22	10639	37	\$182,849	288	7.78	\$636.24	27.33	\$4,844.67	3.61	\$17.38
0-17	5468	15	\$77,487	132	8.80	\$587.02	24.14	\$5,165.80	2.74	\$14.17
18-34	2886	18	\$88,270	129	7.17	\$684.26	44.70	\$4,903.89	6.24	\$30.59
35-64	2185	4	\$17,192	27	6.75	\$636.74	12.36	\$4,298.00	1.83	\$7.87
23	8413	36	\$128,084	312	8.81	\$410.63	33.16	\$3,868.64	3.72	\$13.81
0-17	4898	14	\$67,649	149	10.64	\$454.02	30.42	\$4,832.07	2.86	\$13.81
18-34	2660	16	\$39,628	109	6.81	\$363.56	40.98	\$2,476.75	6.02	\$14.90
35-64	1855	5	\$20,807	54	10.80	\$385.31	29.11	\$4,161.40	2.70	\$11.22
24	16487	81	\$146,539	486	7.86	\$300.88	31.32	\$2,286.88	3.84	\$9.48
0-17	7453	30	\$91,700	263	8.77	\$348.67	35.29	\$3,058.67	4.03	\$12.30
18-34	3730	18	\$30,086	122	6.78	\$246.81	32.71	\$1,671.44	4.83	\$5.07
35-64	4304	13	\$23,753	100	7.69	\$237.53	23.23	\$1,827.15	3.02	\$5.52
25	26806	181	\$887,040	2228	12.30	\$388.48	83.04	\$4,900.77	6.76	\$33.89
0-17	10488	69	\$470,669	1210	17.54	\$388.98	115.39	\$6,821.29	6.58	\$44.89
18-34	5116	48	\$232,496	498	10.38	\$466.86	97.34	\$4,843.67	9.38	\$45.44
35-64	11203	64	\$183,875	518	8.09	\$354.97	46.24	\$2,873.05	5.71	\$16.41
26	10314	29	\$82,800	289	8.87	\$364.86	26.21	\$3,172.41	2.81	\$8.92
0-17	4214	14	\$47,577	133	9.50	\$357.72	31.56	\$3,398.36	3.32	\$11.29
18-34	2414	4	\$12,274	26	6.50	\$472.08	10.77	\$3,068.50	1.66	\$5.08
35-64	3686	11	\$32,149	101	9.18	\$318.31	27.40	\$2,922.64	2.98	\$8.72
TOTALS	336737	1337	\$7,821,082	18768	14.83	\$422.78	66.87	\$6,832.81	3.88	\$23.82
0-17	135650	759	\$5,539,334	13073	17.22	\$423.72	96.37	\$7,298.20	5.60	\$40.84
18-34	70955	288	\$1,309,342	2874	9.98	\$455.58	40.50	\$4,546.33	4.06	\$18.45
35-64	129132	290	\$1,082,416	2812	9.70	\$384.83	21.78	\$3,732.47	2.25	\$8.38

# FY 1994 NCA CHAMPUS INPATIENT MH/SA UTILIZATION DATA

Reporting Area	POP	DISP	GOVT PAID	TOT BD	ALOS	COST/BD	BDs/1000	COST/DISP	DISP/1000	COST/BENEFICIARY
1	8763	28	\$133,803	291	7.88	\$469.12	33.26	\$1,616.87	4.34	\$16.28
0-17	1769	22	\$92,582	211	8.59	\$438.78	119.28	\$4,208.27	12.44	\$52.34
18-34	1053	7	\$27,849	48	6.88	\$560.19	45.58	\$3,978.43	6.65	\$26.45
35-64	5931	9	\$13,172	32	3.56	\$411.63	5.40	\$1,463.56	1.52	\$2.22
2	17236	120	\$447,486	1184	9.87	\$377.84	68.70	\$3,729.04	6.98	\$26.96
0-17	4648	62	\$272,358	647	10.44	\$420.96	139.20	\$4,392.87	13.34	\$58.60
18-34	2533	30	\$112,498	283	9.43	\$397.52	111.73	\$3,749.93	11.84	\$44.41
35-64	10054	28	\$62,629	254	9.07	\$246.57	25.26	\$2,236.75	2.78	\$6.23
3	16621	71	\$264,816	704	8.82	\$381.87	42.81	\$3,588.14	4.30	\$16.41
0-17	4603	27	\$121,879	331	12.26	\$367.61	71.91	\$4,506.63	5.87	\$26.43
18-34	2344	15	\$44,041	112	7.47	\$393.22	47.78	\$2,936.07	6.40	\$18.79
35-64	9574	29	\$88,896	261	9.00	\$340.60	27.26	\$3,065.38	3.03	\$9.29
4	27468	140	\$721,833	1808	11.49	\$448.78	68.67	\$6,164.62	6.10	\$28.28
0-17	8631	62	\$373,312	811	13.08	\$460.31	93.98	\$6,021.16	7.18	\$43.25
18-34	4460	47	\$217,357	446	9.49	\$487.35	100.00	\$4,624.62	10.54	\$48.73
35-64	14362	31	\$130,964	351	11.32	\$373.12	24.44	\$4,224.65	2.16	\$9.12
5	24545	44	\$149,187	488	11.88	\$306.73	18.88	\$3,390.84	1.79	\$6.88
0-17	6236	15	\$58,442	163	10.87	\$358.54	26.14	\$3,896.13	2.41	\$9.37
18-34	3164	9	\$27,624	77	8.56	\$358.75	24.34	\$3,069.33	2.84	\$8.73
35-64	15145	20	\$63,131	248	12.40	\$254.56	16.38	\$3,156.55	1.32	\$4.17
6	30890	166	\$713,456	1876	11.87	\$381.24	64.36	\$4,323.87	6.28	\$23.26
0-17	7153	68	\$365,680	963	14.59	\$379.73	134.63	\$5,540.61	9.23	\$51.12
18-34	3875	26	\$100,713	314	12.08	\$320.74	81.03	\$3,873.58	6.71	\$25.99
35-64	19862	73	\$247,062	698	9.56	\$353.96	35.50	\$3,384.41	3.71	\$12.57
7	18923	88	\$282,290	789	8.22	\$370.48	39.80	\$3,844.88	4.82	\$14.87
0-17	7121	35	\$118,793	316	9.03	\$375.93	44.38	\$3,394.09	4.92	\$16.68
18-34	3727	29	\$95,001	228	7.86	\$416.67	61.18	\$3,275.90	7.78	\$25.49
35-64	9075	32	\$78,496	245	7.68	\$320.39	27.00	\$2,453.00	3.53	\$8.65
8	7206	26	\$83,881	227	8.08	\$280.63	31.61	\$2,647.24	3.47	\$8.84
0-17	1808	7	\$18,353	89	9.86	\$265.99	38.16	\$2,621.88	3.87	\$10.15
18-34	914	5	\$21,164	68	13.60	\$311.24	74.40	\$4,232.80	5.47	\$23.16
35-64	4483	13	\$24,164	90	6.92	\$268.49	20.08	\$1,858.77	2.90	\$5.39
9	3734	26	\$88,144	810	8.40	\$88.86	243.71	\$3,626.78	8.70	\$23.81
0-17	1066	15	\$67,916	224	14.93	\$303.20	210.13	\$4,527.73	14.07	\$63.71
18-34	532	4	\$6,614	628	157.00	\$10.53	1180.45	\$1,653.50	7.52	\$12.43
35-64	2136	6	\$13,614	58	9.67	\$234.72	27.15	\$2,269.00	2.81	\$6.37
10	6328	28	\$89,638	281	9.00	\$288.42	48.89	\$2,387.79	5.44	\$13.06
0-17	1595	11	\$30,377	120	10.91	\$253.14	75.24	\$2,761.55	6.90	\$19.05
18-34	781	7	\$13,257	51	7.29	\$259.94	65.30	\$1,893.86	8.96	\$16.97
35-64	2952	11	\$25,902	90	8.18	\$287.80	30.49	\$2,354.73	3.73	\$8.77
11	8938	42	\$129,116	421	10.02	\$308.89	80.88	\$3,074.17	6.06	\$18.81
0-17	2304	14	\$57,170	196	14.00	\$291.68	85.07	\$4,083.57	6.08	\$24.81
18-34	1108	10	\$25,379	68	6.80	\$373.22	61.37	\$2,537.90	9.03	\$22.91
35-64	3526	18	\$46,566	157	8.72	\$296.60	44.53	\$2,587.00	5.10	\$13.21
12	3692	21	\$72,411	170	8.10	\$426.86	47.33	\$3,448.14	6.85	\$20.16
0-17	861	5	\$13,539	36	7.20	\$376.08	41.81	\$2,707.80	5.81	\$15.72
18-34	490	9	\$42,407	82	9.11	\$517.16	167.35	\$4,711.89	18.37	\$86.54
35-64	2241	7	\$16,465	52	7.43	\$316.63	23.20	\$2,352.14	3.12	\$7.35
TOTALS	171917	816	\$3,136,188	8028	11.08	\$347.27	62.61	\$3,842.12	4.76	\$18.24
0-17	47795	341	\$1,590,201	4087	11.89	\$389.09	85.51	\$4,663.35	7.13	\$33.27
18-34	24981	198	\$733,904	2405	12.15	\$305.16	96.27	\$3,706.59	7.83	\$29.38
35-64	89141	277	\$811,061	2536	9.16	\$319.82	25.58	\$2,928.02	2.79	\$8.18

# FY 1994 CA CHAMPUS INPATIENT MH/SA UTILIZATION DATA

Reporting Area	POP	DISP	GOVT PAID	TOT BD	ALOS	COST/BD	BDs/1000	COST/DISP	DISP/1000	COST/BENEFICIARY
13	38678	101	\$134,566	964	9.54	\$347.06	24.99	\$3,312.63	2.62	\$8.67
0-17	9987	61	\$218,380	622	10.20	\$351.09	62.28	\$3,580.00	6.11	\$21.87
18-34	5715	14	\$34,891	94	6.71	\$371.18	16.45	\$2,492.21	2.45	\$6.11
35-64	22876	26	\$81,295	248	9.54	\$327.80	10.84	\$3,126.73	1.14	\$3.55
14	60207	194	\$867,611	1864	9.61	\$460.09	30.96	\$4,420.68	3.22	\$14.24
0-17	26239	114	\$642,685	1363	11.96	\$471.52	51.95	\$5,637.59	4.34	\$24.49
18-34	13938	46	\$122,907	217	4.72	\$566.39	15.57	\$2,671.89	3.30	\$8.82
35-64	20030	34	\$92,019	284	8.35	\$324.01	14.18	\$2,706.44	1.70	\$4.59
15	32462	120	\$472,666	904	7.63	\$622.76	27.86	\$3,938.04	3.70	\$14.66
0-17	11515	66	\$325,141	581	8.80	\$559.62	50.46	\$4,926.38	5.73	\$28.24
18-34	5541	30	\$87,943	189	6.30	\$465.31	34.11	\$2,931.43	5.41	\$15.87
35-64	15396	24	\$59,481	134	5.58	\$443.89	8.70	\$2,478.38	1.56	\$3.86
16	7836	43	\$186,196	371	8.63	\$499.18	47.36	\$4,306.88	6.49	\$23.64
0-17	3593	17	\$77,182	167	9.82	\$462.17	46.48	\$4,540.12	4.73	\$21.48
18-34	1841	22	\$97,635	182	8.27	\$536.46	98.86	\$4,437.95	11.95	\$53.03
35-64	2401	4	\$10,379	22	5.50	\$471.77	9.16	\$2,594.75	1.67	\$4.32
17	28366	106	\$477,477	1117	10.54	\$427.46	39.39	\$4,604.60	3.74	\$16.84
0-17	14054	40	\$287,925	614	15.35	\$468.93	43.69	\$7,198.13	2.85	\$20.49
18-34	7559	54	\$154,763	399	7.39	\$387.88	52.78	\$2,865.98	7.14	\$20.47
35-64	6743	12	\$34,789	104	8.67	\$334.51	15.42	\$2,899.08	1.78	\$5.16
18	26809	133	\$611,993	1608	11.34	\$405.83	66.26	\$4,601.46	4.86	\$22.83
0-17	9543	63	\$375,450	888	14.10	\$422.80	93.05	\$5,959.52	6.60	\$39.34
18-34	4168	28	\$75,560	225	8.04	\$335.82	53.98	\$2,698.57	6.72	\$18.13
35-64	13098	42	\$160,983	395	9.40	\$407.55	30.16	\$3,832.93	3.21	\$12.29
19	19249	26	\$196,640	460	18.40	\$427.26	23.90	\$7,861.60	1.30	\$10.21
0-17	8254	21	\$163,511	387	18.43	\$422.51	46.89	\$7,786.24	2.54	\$19.81
18-34	4175	3	\$22,505	52	17.33	\$432.79	12.46	\$7,501.67	0.72	\$5.39
35-64	6820	1	\$10,524	21	21.00	\$501.14	3.08	\$10,524.00	0.15	\$1.54
20	9830	66	\$460,363	860	16.46	\$629.83	86.47	\$8,188.24	6.60	\$46.81
0-17	4211	25	\$259,502	448	17.92	\$579.25	106.39	\$10,380.08	5.94	\$61.62
18-34	2138	8	\$77,960	127	15.88	\$613.86	59.40	\$9,745.00	3.74	\$36.46
35-64	3481	22	\$112,891	275	12.50	\$410.51	79.00	\$5,131.41	6.32	\$32.43
21	37963	167	\$882,120	2207	14.06	\$399.69	68.14	\$6,618.60	4.14	\$23.24
0-17	14555	117	\$722,914	1719	14.69	\$420.54	118.10	\$6,178.75	8.04	\$49.67
18-34	7539	21	\$76,693	200	9.52	\$383.47	26.53	\$3,652.05	2.79	\$10.17
35-64	15869	19	\$82,513	288	15.16	\$286.50	18.15	\$4,342.79	1.20	\$5.20
22	10323	28	\$139,482	246	8.76	\$669.31	23.73	\$4,981.60	2.71	\$13.61
0-17	5160	8	\$45,784	78	9.75	\$586.97	15.12	\$5,723.00	1.55	\$8.87
18-34	2767	14	\$47,794	64	4.57	\$746.78	23.13	\$3,413.86	5.06	\$17.27
35-64	2396	6	\$45,904	103	17.17	\$445.67	42.99	\$7,650.67	2.50	\$19.16
23	9823	64	\$220,982	691	10.94	\$373.91	60.16	\$4,092.26	6.60	\$22.60
0-17	4916	31	\$116,783	365	11.77	\$319.95	74.25	\$3,767.19	6.31	\$23.76
18-34	1644	16	\$85,539	172	10.75	\$497.32	104.62	\$5,346.19	9.73	\$52.03
35-64	3263	7	\$18,660	54	7.71	\$345.56	16.55	\$2,665.71	2.15	\$5.72
24	14489	64	\$163,408	431	7.98	\$356.94	29.76	\$2,840.89	3.73	\$10.69
0-17	6653	28	\$112,563	305	10.89	\$369.06	45.84	\$4,020.11	4.21	\$16.92
18-34	3309	11	\$12,719	39	3.55	\$326.13	11.79	\$1,156.27	3.32	\$3.84
35-64	4527	15	\$28,126	87	5.80	\$323.29	19.22	\$1,875.07	3.31	\$6.21
25	26333	124	\$438,124	1267	10.22	\$346.80	48.11	\$3,633.26	4.71	\$16.64
0-17	10273	58	\$229,810	758	13.07	\$303.18	73.79	\$3,962.24	5.65	\$22.37
18-34	4961	29	\$86,292	230	7.93	\$375.18	46.36	\$2,975.59	5.85	\$17.39
35-64	11099	37	\$122,022	279	7.54	\$437.35	25.14	\$3,297.89	3.33	\$10.99
26	10368	29	\$118,109	231	7.97	\$611.29	22.28	\$4,072.72	2.80	\$11.33
0-17	4242	19	\$85,464	155	8.16	\$551.38	36.54	\$4,498.11	4.48	\$20.15
18-34	2439	4	\$12,536	24	6.00	\$522.33	9.84	\$3,134.00	1.64	\$5.14
35-64	3687	6	\$20,109	52	8.67	\$386.71	14.10	\$3,351.50	1.63	\$5.45
TOTALS	332616	1223	\$6,638,626	13010	10.64	\$426.71	39.11	\$4,628.64	3.68	\$16.66
0-17	133195	668	\$3,663,094	8450	12.65	\$433.50	63.44	\$5,483.67	5.02	\$27.50
18-34	67734	300	\$995,737	2214	7.38	\$449.75	32.69	\$3,319.12	4.43	\$14.70
35-64	131686	255	\$879,695	2346	9.20	\$374.98	17.82	\$3,449.78	1.94	\$6.68



## APPENDIX G

### FY 93/94 RTC UTILIZATION AND COST DATA

<b>DRG</b>	<b>FY 93 DISP</b>	<b>FY 93 COSTS</b>	<b>FY 94 DISP</b>	<b>FY 94 COSTS</b>	<b>AVG DISP</b>	<b>AVG COSTS</b>
424 (total)	0	\$0	0	\$0	0.0	\$0
ages 0-17	0	\$0	0	\$0	0.0	\$0
ages 18-34	0	\$0	0	\$0	0.0	\$0
ages 35-64	0	\$0	0	\$0	0.0	\$0
425 (total)	4	\$213,263	5	\$220,209	4.5	\$216,736
ages 0-17	4	\$213,263	5	\$220,209	4.5	\$216,736
ages 18-34	0	\$0	0	\$0	0.0	\$0
ages 35-64	0	\$0	0	\$0	0.0	\$0
426 (total)	22	\$749,487	26	\$1,000,045	24.0	\$874,766
ages 0-17	22	\$479,487	25	\$974,797	23.5	\$862,142
ages 18-34	0	\$0	1	\$25,248	0.5	\$12,624
ages 35-64	0	\$0	0	\$0	0.0	\$0
427 (total)	11	\$518,065	20	\$440,983	15.5	\$479,524
ages 0-17	10	\$418,693	20	\$440,983	15.0	\$429,838
ages 18-34	1	\$99,372	0	\$0	0.5	\$49,686
ages 35-64	0	\$0	0	\$0	0.0	\$0
428 (total)	2	\$85,761	7	\$422,486	4.5	\$254,124
ages 0-17	2	\$85,761	7	\$422,486	4.5	\$254,124
ages 18-34	0	\$0	0	\$0	0.0	\$0
ages 35-64	0	\$0	0	\$0	0.0	\$0
429 (total)	1	\$117,418	0	\$0	0.5	\$58,709
ages 0-17	1	\$117,418	0	\$0	0.5	\$58,709
ages 18-34	0	\$0	0	\$0	0.0	\$0
ages 35-64	0	\$0	0	\$0	0.0	\$0

<b>DRG</b>	<b>FY 93 DISP</b>	<b>FY 93 COSTS</b>	<b>FY 94 DISP</b>	<b>FY 94 COSTS</b>	<b>AVG DISP</b>	<b>AVG COSTS</b>
430 (total)	107	\$3,219,804	140	\$3,847,854	123.5	\$3,533,829
ages 0-17	104	\$3,191,476	140	\$3,847,854	122.0	\$3,519,665
ages 18-34	3	\$28,328	0	\$0	1.5	\$14,164
ages 35-64	0	\$0	0	\$0	0.0	\$0
431 (total)	55	\$1,688,390	78	\$2,270,095	66.5	\$1,979,243
ages 0-17	54	\$1,642,725	77	\$2,202,442	65.5	\$1,922,584
ages 18-34	1	\$45,665	1	\$67,653	1.0	\$56,659
ages 35-64	0	\$0	0	\$0	0.0	\$0
432 (total)	0	\$0	1	\$25,305	0.5	\$12,653
ages 0-17	0	\$0	1	\$25,305	0.5	\$12,653
ages 18-34	0	\$0	0	\$0	0.0	\$0
ages 35-64	0	\$0	0	\$0	0.0	\$0
433 (total)	0	\$0	0	\$0	0.0	\$0
ages 0-17	0	\$0	0	\$0	0.0	\$0
ages 18-34	0	\$0	0	\$0	0.0	\$0
ages 35-64	0	\$0	0	\$0	0.0	\$0
434 (total)	0	\$0	0	\$0	0.0	\$0
ages 0-17	0	\$0	0	\$0	0.0	\$0
ages 18-34	0	\$0	0	\$0	0.0	\$0
ages 35-64	0	\$0	0	\$0	0.0	\$0
435 (total)	0	\$0	0	\$0	0.0	\$0
ages 0-17	0	\$0	0	\$0	0.0	\$0
ages 18-34	0	\$0	0	\$0	0.0	\$0
ages 35-64	0	\$0	0	\$0	0.0	\$0
436 (total)	0	\$0	0	\$0	0.0	\$0
ages 0-17	0	\$0	0	\$0	0.0	\$0

<b>DRG</b>	<b>FY 93 DISP</b>	<b>FY 93 COSTS</b>	<b>FY 94 DISP</b>	<b>FY 94 COSTS</b>	<b>AVG DISP</b>	<b>AVG COSTS</b>
ages 18-34	0	\$0	0	\$0	0.0	\$0
ages 35-64	0	\$0	0	\$0	0.0	\$0
437 (total)	0	\$0	0	\$0	0.0	\$0
ages 0-17	0	\$0	0	\$0	0.0	\$0
ages 18-34	0	\$0	0	\$0	0.0	\$0
ages 35-64	0	\$0	0	\$0	0.0	\$0
900 (total)	0	\$0	7	\$222,564	3.5	\$111,282
ages 0-17	0	\$0	7	\$222,564	3.5	\$111,282
ages 18-34	0	\$0	0	\$0	0.0	\$0
ages 35-64	0	\$0	0	\$0	0.0	\$0
901 (total)	0	\$0	0	\$0	0.0	\$0
ages 0-17	0	\$0	0	\$0	0.0	\$0
ages 18-34	0	\$0	0	\$0	0.0	\$0
ages 35-64	0	\$0	0	\$0	0.0	\$0
<b>Total</b>	202	\$6,592,188	284	\$8,449,541	243.0	\$7,520,865
ages 0-17	197	\$6,418,823	282	\$92,901	239.5	\$7,387,732
ages 18-34	5	\$173,365	2	\$92,901	3.5	\$133,133
ages 35-64			0	\$0	0.0	\$0

# FY 1993 NCA CHAMPUS RTC MH/SA UTILIZATION DATA

Reporting Area	POP	DISP	GOVT PAID	TOT BD	ALOS	COST/BD	BDs/1000	COST/DISP	DISP/1000	COST/BENEFICIARY
1	8649	2	\$108,698	282	141.00	\$388.37	32.88	\$24,848.50	6.23	\$12.81
0-17	1633	1	\$9,724	28	28.00	\$347.29	17.15	\$9,724.00	0.61	\$5.95
18-34	1108	1	\$99,372	254	254.00	\$391.23	229.24	\$99,372.00	0.90	\$89.69
35-64	5908	0	\$0	0			0.00		0.00	\$0.00
2	16812	16	\$360,687	1716	107.26	\$204.36	109.92	\$21,917.94	1.92	\$22.46
0-17	4146	16	\$350,687	1716	107.25	\$204.36	413.89	\$21,917.94	3.86	\$84.58
18-34	2477	0	\$0	0			0.00		0.00	\$0.00
35-64	8989	0	\$0	0			0.00		0.00	\$0.00
3	16671	6	\$0	0			0.00		0.00	\$0.00
0-17	4278	0	\$0	0			0.00		0.00	\$0.00
18-34	2506	0	\$0	0			0.00		0.00	\$0.00
35-64	9787	0	\$0	0			0.00		0.00	\$0.00
4	30170	20	\$809,797	2018	100.95	\$401.09	68.82	\$40,489.85	0.88	\$28.84
0-17	9960	20	\$809,797	2018	100.95	\$401.09	202.71	\$40,489.85	2.01	\$81.30
18-34	5394	0	\$0	0			0.00		0.00	\$0.00
35-64	14816	0	\$0	0			0.00		0.00	\$0.00
5	24828	0	\$0	0			0.00		0.00	\$0.00
0-17	6009	0	\$0	0			0.00		0.00	\$0.00
18-34	3254	0	\$0	0			0.00		0.00	\$0.00
35-64	15565	0	\$0	0			0.00		0.00	\$0.00
6	30402	13	\$438,162	1042	80.16	\$420.48	34.27	\$33,704.00	0.43	\$14.41
0-17	6657	12	\$435,767	1037	86.42	\$420.22	155.78	\$36,313.92	1.80	\$55.46
18-34	4038	1	\$2,385	5	5.00	\$477.00	1.24	\$2,385.00	0.25	\$0.59
35-64	19707	0	\$0	0			0.00		0.00	\$0.00
7	20978	7	\$116,323	288	42.67	\$388.88	14.84	\$16,474.71	0.36	\$6.74
0-17	7136	7	\$116,323	288	42.67	\$388.88	41.78	\$16,474.71	0.98	\$16.16
18-34	3886	0	\$0	0			0.00		0.00	\$0.00
35-64	8056	0	\$0	0			0.00		0.00	\$0.00
8	7248	1	\$48,058	88	88.00	\$469.98	13.62	\$48,058.00	0.14	\$6.38
0-17	1674	1	\$48,058	98	98.00	\$469.98	58.54	\$48,058.00	0.60	\$27.51
18-34	976	0	\$0	0			0.00		0.00	\$0.00
35-64	4596	0	\$0	0			0.00		0.00	\$0.00
9	3687	0	\$0	0			0.00		0.00	\$0.00
0-17	1068	0	\$0	0			0.00		0.00	\$0.00
18-34	560	0	\$0	0			0.00		0.00	\$0.00
35-64	2059	0	\$0	0			0.00		0.00	\$0.00
10	6264	0	\$0	0			0.00		0.00	\$0.00
0-17	1502	0	\$0	0			0.00		0.00	\$0.00
18-34	861	0	\$0	0			0.00		0.00	\$0.00
35-64	2991	0	\$0	0			0.00		0.00	\$0.00
11	6682	2	\$32,880	207	103.60	\$158.84	31.64	\$16,440.00	0.39	\$6.01
0-17	2220	2	\$32,880	207	103.50	\$158.84	83.24	\$16,440.00	0.90	\$14.81
18-34	1079	0	\$0	0			0.00		0.00	\$0.00
35-64	3264	0	\$0	0			0.00		0.00	\$0.00
12	3736	0	\$0	0			0.00		0.00	\$0.00
0-17	905	0	\$0	0			0.00		0.00	\$0.00
18-34	510	0	\$0	0			0.00		0.00	\$0.00
35-64	2320	0	\$0	0			0.00		0.00	\$0.00
TOTALS	172896	61	\$1,901,993	6662	82.82	\$336.92	32.76	\$31,180.21	0.36	\$11.06
0-17	47188	59	\$1,800,236	5403	91.58	\$333.19	114.50	\$30,512.47	1.25	\$38.15
18-34	26649	2	\$101,757	259	129.50	\$392.88	9.72	\$50,878.50	0.08	\$3.82
35-64	99058	0	\$0	0			0.00		0.00	\$0.00

# FY 1993 CA CHAMPUS RTC MH/SA UTILIZATION DATA

Reporting Area	POP	DISP	GOVT PAID	TOT BD	ALOS	COST/BD	BDs/1000	COST/DISP	DISP/1000	COST/BENEFICIARY
13	42302	9	\$302,064	929	102.39	\$327.28	21.89	\$33,873.78	0.21	\$7.16
0-17	11759	8	\$257,399	814	101.75	\$316.21	69.22	\$32,174.88	0.68	\$21.89
18-34	6998	1	\$45,665	112	112.00	\$407.72	16.00	\$45,665.00	0.14	\$6.53
35-64	23545	0	\$0	0			0.00		0.00	\$0.00
14	64806	37	\$970,173	3196	86.38	\$303.56	68.28	\$26,220.89	0.86	\$17.88
0-17	24217	37	\$970,173	3196	86.38	\$303.56	131.87	\$26,220.89	1.53	\$40.06
18-34	13348	0	\$0	0			0.00		0.00	\$0.00
35-64	19240	0	\$0	0			0.00		0.00	\$0.00
15	30047	18	\$601,845	2034	113.00	\$295.89	97.69	\$33,435.83	0.80	\$29.82
0-17	10484	18	\$601,845	2034	113.00	\$295.89	194.01	\$33,435.83	1.72	\$57.41
18-34	5204	0	\$0	0			0.00		0.00	\$0.00
35-64	14359	0	\$0	0			0.00		0.00	\$0.00
16	10188	14	\$305,846	1343	95.93	\$227.58	131.82	\$21,831.86	1.37	\$38.80
0-17	4506	14	\$305,846	1343	95.93	\$227.58	298.05	\$21,831.86	3.11	\$67.83
18-34	2223	0	\$0	0			0.00		0.00	\$0.00
35-64	3459	0	\$0	0			0.00		0.00	\$0.00
17	28887	12	\$567,613	1329	110.75	\$427.10	46.82	\$47,301.08	0.42	\$29.86
0-17	14317	12	\$567,613	1329	110.75	\$427.10	92.83	\$47,301.08	0.84	\$39.65
18-34	7582	0	\$0	0			0.00		0.00	\$0.00
35-64	6488	0	\$0	0			0.00		0.00	\$0.00
18	27176	24	\$1,053,051	2534	110.17	\$415.57	260.11	\$45,784.83	2.36	\$108.09
0-17	9742	23	\$1,053,051	2534	110.17	\$415.57	10.57	\$13,590.00	0.22	\$3.06
18-34	4446	1	\$13,590	47	47.00	\$289.15				
35-64	12987	0	\$0	0			0.00		0.00	\$0.00
19	19908	4	\$240,346	557	139.25	\$431.50	27.88	\$60,086.50	0.29	\$12.47
0-17	8620	4	\$240,346	557	139.25	\$431.50	64.62	\$60,086.50	0.46	\$27.88
18-34	4426	0	\$0	0			0.00		0.00	\$0.00
35-64	6862	0	\$0	0			0.00		0.00	\$0.00
20	8793	4	\$116,435	272	68.00	\$428.07	27.77	\$29,108.75	0.41	\$11.89
0-17	4124	4	\$116,435	272	68.00	\$428.07	65.96	\$29,108.75	0.97	\$28.23
18-34	2101	0	\$0	0			0.00		0.00	\$0.00
35-64	3568	0	\$0	0			0.00		0.00	\$0.00
21	38674	3	\$199,106	481	160.33	\$413.94	12.47	\$66,368.67	0.20	\$12.96
0-17	15362	3	\$199,106	481	160.33	\$413.94	31.31	\$66,368.67	0.20	\$12.96
18-34	7821	0	\$0	0			0.00		0.00	\$0.00
35-64	15391	0	\$0	0			0.00		0.00	\$0.00
22	10638	0	\$0	0			0.00		0.00	\$0.00
0-17	5468	0	\$0	0			0.00		0.00	\$0.00
18-34	2886	0	\$0	0			0.00		0.00	\$0.00
35-64	2185	0	\$0	0			0.00		0.00	\$0.00
23	8413	0	\$0	0			0.00		0.00	\$0.00
0-17	4898	0	\$0	0			0.00		0.00	\$0.00
18-34	2660	0	\$0	0			0.00		0.00	\$0.00
35-64	1855	0	\$0	0			0.00		0.00	\$0.00
24	16487	0	\$0	0			0.00		0.00	\$0.00
0-17	7453	0	\$0	0			0.00		0.00	\$0.00
18-34	3730	0	\$0	0			0.00		0.00	\$0.00
35-64	4304	0	\$0	0			0.00		0.00	\$0.00
25	28896	15	\$306,973	1476	98.40	\$207.98	140.76	\$20,464.87	1.43	\$29.27
0-17	10486	15	\$306,973	1476	98.40	\$207.98	6.25	\$12,353.00	0.20	\$2.41
18-34	5116	1	\$12,353	32	32.00	\$386.03				
35-64	11203	0	\$0	0			0.00		0.00	\$0.00
26	10214	0	\$0	0			0.00		0.00	\$0.00
0-17	4214	0	\$0	0			0.00		0.00	\$0.00
18-34	2414	0	\$0	0			0.00		0.00	\$0.00
35-64	3686	0	\$0	0			0.00		0.00	\$0.00
TOTALS	336737	141	\$4,890,186	14227	100.80	\$328.87	42.38	\$33,263.79	0.42	\$13.97
0-17	135650	138	\$4,818,587	14036	101.71	\$329.05	103.47	\$33,468.02	1.02	\$34.05
18-34	70955	3	\$71,608	191	63.67	\$374.91	2.69	\$23,869.33	0.04	\$1.01
35-64	129132	0	\$0	0			0.00		0.00	\$0.00

# FY 1994 NCA CHAMPUS RTC MH/SA UTILIZATION DATA

Reporting Area	POP	DISP	GOVT PAID	TOT BD	ALOS	COST/BD	BDs/1000	COST/DISP	DISP/1000	COST/BENEFICIARY
1	8763	6	\$183,659	431	88.20	\$428.12	48.24	\$36,731.80	0.67	\$20.98
0-17	1769	5	\$183,659	431	86.20	\$426.12	243.64	\$36,731.80	2.83	\$103.82
18-34	1053	0	\$0		ERR		0.00		0.00	\$0.00
35-64	5931	0	\$0		ERR		0.00		0.00	\$0.00
2	17236	25	\$724,993	2517	100.88	\$288.04	148.04	\$28,999.72	1.46	\$42.07
0-17	4648	25	\$724,993	2517	100.88	\$288.04	541.52	\$28,999.72	5.38	\$155.98
18-34	2533	0	\$0		ERR		0.00		0.00	\$0.00
35-64	10054	0	\$0		ERR		0.00		0.00	\$0.00
3	16621	1	\$9,890	35	35.00	\$282.57	7.60	\$9,890.00	0.22	\$2.15
0-17	4603	1	\$9,890	35	35.00	\$282.57	0.00		0.00	\$0.00
18-34	2344	0	\$0		ERR		0.00		0.00	\$0.00
35-64	9574	0	\$0		ERR		0.00		0.00	\$0.00
4	27463	12	\$304,368	907	89.77	\$335.67	32.04	\$23,412.15	0.47	\$11.09
0-17	8631	12	\$279,110	823	68.58	\$339.14	95.35	\$23,259.17	1.39	\$32.34
18-34	4460	1	\$25,248	84	84.00	\$300.57	18.83	\$25,248.00	0.22	\$5.66
35-64	14362	0	\$0		ERR		0.00		0.00	\$0.00
5	24646	0	\$0	0	ERR		0.00		0.00	\$0.00
0-17	6236	0	\$0		ERR		0.00		0.00	\$0.00
18-34	3164	0	\$0		ERR		0.00		0.00	\$0.00
35-64	15145	0	\$0		ERR		0.00		0.00	\$0.00
6	30890	17	\$751,290	1710	100.59	\$439.35	66.72	\$44,193.53	0.66	\$24.48
0-17	7153	17	\$751,290	1710	100.59	\$439.35	239.06	\$44,193.53	2.38	\$105.03
18-34	3875	0	\$0		ERR		0.00		0.00	\$0.00
35-64	19662	0	\$0		ERR		0.00		0.00	\$0.00
7	19923	10	\$240,971	931	93.10	\$258.83	46.73	\$24,097.10	0.60	\$12.10
0-17	7121	10	\$240,971	931	93.10	\$258.83	130.74	\$24,097.10	1.40	\$33.84
18-34	3727	0	\$0		ERR		0.00		0.00	\$0.00
35-64	9075	0	\$0		ERR		0.00		0.00	\$0.00
8	7205	2	\$97,178	227	113.60	\$428.10	31.61	\$48,589.00	0.28	\$13.49
0-17	1808	2	\$97,178	227	113.60	\$428.10	125.55	\$48,589.00	1.11	\$53.75
18-34	914	0	\$0		ERR		0.00		0.00	\$0.00
35-64	4483	0	\$0		ERR		0.00		0.00	\$0.00
9	3734	0	\$0	0	ERR		0.00		0.00	\$0.00
0-17	1066	0	\$0		ERR		0.00		0.00	\$0.00
18-34	532	0	\$0		ERR		0.00		0.00	\$0.00
35-64	2136	0	\$0		ERR		0.00		0.00	\$0.00
10	6328	1	\$14,442	71	71.00	\$203.41	13.33	\$14,442.00	0.10	\$2.71
0-17	1595	1	\$14,442	71	71.00	\$203.41	44.51	\$14,442.00	0.63	\$9.05
18-34	781	0	\$0		ERR		0.00		0.00	\$0.00
35-64	2952	0	\$0		ERR		0.00		0.00	\$0.00
11	6938	5	\$152,194	487	97.40	\$312.51	70.19	\$30,438.80	0.72	\$21.94
0-17	2304	5	\$152,194	487	97.40	\$312.51	211.37	\$30,438.80	2.17	\$66.06
18-34	1108	0	\$0		ERR		0.00		0.00	\$0.00
35-64	3526	0	\$0		ERR		0.00		0.00	\$0.00
12	3692	0	\$0	0	ERR		0.00		0.00	\$0.00
0-17	861	0	\$0		ERR		0.00		0.00	\$0.00
18-34	490	0	\$0		ERR		0.00		0.00	\$0.00
35-64	2241	0	\$0		ERR		0.00		0.00	\$0.00
TOTALS	171917	79	\$2,478,976	7316	92.61	\$338.84	42.64	\$31,379.43	0.46	\$14.42
0-17	47795	78	\$2,453,727	7232	92.72	\$339.29	151.31	\$31,458.04	1.63	\$51.34
18-34	24981	1	\$25,248	84	84.00	\$300.57	3.36	\$25,248.00	0.04	\$1.01
35-64	99141	0	\$0	0			0.00		0.00	\$0.00

# **FY 1994 CA CHAMPUS RTC MH/SA UTILIZATION DATA**

Reporting Area	POP	DISP	GOVT PAID	TOT BD	ALOS	COST/BD	BDs/1000	COST/DISP	DISP/1000	COST/BENEFICIARY
13	38678	25	\$694,192	2008	80.32	\$345.71	62.06	\$27,767.68	0.66	\$17.99
0-17	9987	25	\$694,192	2008	80.32	\$345.71	201.06	\$27,767.68	2.50	\$69.51
18-34	5715	0	\$0	0			0.00		0.00	\$0.00
35-64	22876	0	\$0	0			0.00		0.00	\$0.00
14	60207	60	\$1,535,581	4278	86.66	\$358.95	71.06	\$30,711.62	0.83	\$26.61
0-17	26239	50	\$1,535,581	4278	85.56	\$358.95	163.04	\$30,711.62	1.91	\$58.52
18-34	13938	0	\$0				0.00		0.00	\$0.00
35-64	20030	0	\$0				0.00		0.00	\$0.00
15	32452	43	\$1,086,902	3074	71.49	\$353.58	\$4.72	\$25,276.79	1.33	\$33.49
0-17	11515	43	\$1,086,902	3074	71.49	\$353.58	266.96	\$25,276.79	3.73	\$94.39
18-34	5541	0	\$0				0.00		0.00	\$0.00
35-64	15396	0	\$0				0.00		0.00	\$0.00
16	7836	6	\$162,652	602	100.33	\$270.19	76.83	\$27,108.67	0.77	\$20.76
0-17	3593	6	\$162,652	602	100.33	\$270.19	167.55	\$27,108.67	1.67	\$45.27
18-34	1841	0	\$0				0.00		0.00	\$0.00
35-64	2401	0	\$0				0.00		0.00	\$0.00
17	28366	7	\$344,956	910	130.00	\$379.07	32.09	\$49,279.43	0.26	\$12.17
0-17	14054	7	\$344,956	910	130.00	\$379.07	64.75	\$49,279.43	0.50	\$24.55
18-34	7559	0	\$0				0.00		0.00	\$0.00
35-64	6743	0	\$0				0.00		0.00	\$0.00
18	26809	16	\$522,946	1303	81.44	\$401.34	48.60	\$32,684.13	0.60	\$19.61
0-17	9543	16	\$522,946	1303	81.44	\$401.34	136.54	\$32,684.13	1.68	\$54.80
18-34	4168	0	\$0				0.00		0.00	\$0.00
35-64	13098	0	\$0				0.00		0.00	\$0.00
19	19249	10	\$364,441	821	82.10	\$443.90	42.66	\$36,444.10	0.62	\$18.93
0-17	8254	10	\$364,441	821	82.10	\$443.90	99.47	\$36,444.10	1.21	\$44.15
18-34	4175	0	\$0				0.00		0.00	\$0.00
35-64	6820	0	\$0				0.00		0.00	\$0.00
20	9830	3	\$138,111	325	108.33	\$424.96	33.06	\$46,037.00	0.31	\$14.06
0-17	4211	3	\$138,111	325	108.33	\$424.96	77.18	\$46,037.00	0.71	\$32.80
18-34	2138	0	\$0				0.00		0.00	\$0.00
35-64	3481	0	\$0				0.00		0.00	\$0.00
21	37963	9	\$386,949	967	107.44	\$399.12	26.47	\$42,883.22	0.24	\$10.17
0-17	14555	8	\$318,296	827	103.38	\$384.88	56.82	\$39,787.00	0.55	\$21.87
18-34	7539	1	\$67,653	140	140.00	\$483.24	18.57	\$67,653.00	0.13	\$8.97
35-64	15869	0	\$0				0.00		0.00	\$0.00
22	10323	0	\$0	0			0.00		0.00	\$0.00
0-17	5160	0	\$0	0			0.00		0.00	\$0.00
18-34	2767	0	\$0	0			0.00		0.00	\$0.00
35-64	2396	0	\$0	0			0.00		0.00	\$0.00
23	9823	4	\$127,286	347	86.76	\$366.82	36.33	\$31,821.50	0.41	\$12.96
0-17	4916	4	\$127,286	347	86.75	\$366.82	70.59	\$31,821.50	0.81	\$25.89
18-34	1644	0	\$0	0			0.00		0.00	\$0.00
35-64	3263	0	\$0	0			0.00		0.00	\$0.00
24	14489	1	\$34,036	98	98.00	\$347.31	6.76	\$34,036.00	0.07	\$2.36
0-17	6853	1	\$34,036	98	98.00	\$347.31	14.73	\$34,036.00	0.15	\$5.12
18-34	3309	0	\$0	0			0.00		0.00	\$0.00
35-64	4527	0	\$0	0			0.00		0.00	\$0.00
25	26333	29	\$446,366	2057	70.93	\$217.00	78.11	\$15,391.93	1.10	\$16.96
0-17	10273	29	\$446,366	2057	70.93	\$217.00	200.23	\$15,391.93	2.82	\$43.45
18-34	4961	0	\$0	0			0.00		0.00	\$0.00
35-64	11099	0	\$0	0			0.00		0.00	\$0.00
26	10368	2	\$127,148	269	134.60	\$472.67	26.96	\$63,574.00	0.19	\$12.26
0-17	4242	2	\$127,148	269	134.50	\$472.67	63.41	\$63,574.00	0.47	\$29.97
18-34	2439	0	\$0	0			0.00		0.00	\$0.00
35-64	3687	0	\$0	0			0.00		0.00	\$0.00
TOTALS	332616	206	\$5,970,666	17069	83.21	\$360.00	61.29	\$29,124.71	0.62	\$17.96
0-17	133195	204	\$5,902,913	16919	82.94	\$348.89	127.02	\$28,935.85	1.53	\$44.32
18-34	67734	1	\$67,653	140	140.00	\$483.24	2.07	\$67,653.00	0.01	\$1.00
35-64	131686	0	\$0	0			0.00		0.00	\$0.00

## APPENDIX H

### OUTPATIENT MH/SA AVERAGE COSTS BY REPORTING AREA

ANOVA and Scheffe' test with significance level .05

Reporting Area 11 significantly different from all other reporting areas

Reporting Area Code	n	Mean	Standard Deviation	Average difference from reporting area 11
19	6	\$5.83	\$2.01	\$156.09
7	6	\$8.43	\$1.00	\$153.48
22	6	\$9.03	\$3.47	\$152.89
4	6	\$9.62	\$1.40	\$152.29
6	6	\$9.98	\$4.24	\$151.94
10	6	\$11.24	\$4.62	\$150.68
3	6	\$11.75	\$4.02	\$150.17
16	6	\$11.99	\$2.05	\$149.92
26	6	\$12.32	\$3.19	\$149.59
12	6	\$12.48	\$6.53	\$149.43
24	6	\$14.32	\$2.55	\$147.60
5	6	\$14.98	\$6.97	\$146.93
8	6	\$14.99	\$7.77	\$146.92
20	6	\$15.04	\$4.16	\$146.88
18	6	\$19.95	\$5.13	\$141.95
17	6	\$21.56	\$7.12	\$140.35
2	6	\$22.73	\$9.44	\$139.18
21	6	\$25.65	\$5.43	\$136.26
1	6	\$27.17	\$13.95	\$134.74
25	6	\$28.38	\$10.17	\$133.53
14	6	\$29.47	\$5.89	\$132.44
23	6	\$29.61	\$12.29	\$132.31



<b>Reporting Area Code</b>	<b>n</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Average difference from reporting area 11</b>
13	6	\$31.06	\$11.29	\$130.86
9	6	\$36.38	\$27.61	\$125.54
15	6	\$39.43	\$6.67	\$122.49
11	6	\$161.92	\$57.79	-----
<b>Total</b>	156	\$24.44	\$31.84	-----

# APPENDIX I

## INPATIENT MH/SA AVERAGE COSTS BY REPORTING AREA

ANOVA and Scheffe' test with significance level .05

No two groups significantly different at the .05 level

Reporting Area Code	n	Mean	Standard Deviation
24	6	\$8.81	\$4.91
26	6	\$9.31	\$5.86
19	6	\$10.78	\$10.67
5	6	\$11.00	\$7.74
13	6	\$14.64	\$15.63
14	6	\$15.92	\$11.60
22	6	\$16.32	\$8.29
17	6	\$17.07	\$10.83
15	6	\$17.44	\$18.18
7	6	\$19.08	\$11.14
3	6	\$20.06	\$10.17
23	6	\$20.24	\$16.64
10	6	\$21.86	\$21.21
1	6	\$23.33	\$20.51
8	6	\$23.49	\$23.40
9	6	\$24.10	\$23.58
21	6	\$24.51	\$25.51
25	6	\$26.25	\$15.09
16	6	\$26.49	\$19.89
4	6	\$33.31	\$17.38
11	6	\$33.36	\$28.30
2	6	\$33.48	\$21.75

<b>Reporting Area Code</b>	<b>n</b>	<b>Mean</b>	<b>Standard Deviation</b>
18	6	\$35.36	\$27.35
6	6	\$38.87	\$27.51
20	6	\$45.23	\$21.62
12	6	\$47.16	\$52.59
<b>Total</b>	156	\$23.75	\$21.64

## APPENDIX J

### RTC MH/SA AVERAGE COSTS BY REPORTING AREA

ANOVA and Scheffe' test with significance level .05

No two groups significantly different at the .05 level

Reporting Area Code	n	Mean	Standard Deviation
5	6	\$0.00	\$0.00
9	6	\$0.00	\$0.00
12	6	\$0.00	\$0.00
22	6	\$0.00	\$0.00
3	6	\$0.36	\$0.88
24	6	\$0.85	\$2.09
10	6	\$1.51	\$3.70
23	6	\$4.32	\$10.57
26	6	\$5.00	\$12.24
21	6	\$7.30	\$9.02
7	6	\$8.33	\$14.07
20	6	\$10.17	\$15.82
17	6	\$10.70	\$17.25
19	6	\$12.01	\$19.30
25	6	\$12.52	\$19.03
11	6	\$13.48	\$26.43
8	6	\$13.54	\$22.56
13	6	\$16.32	\$27.41
14	6	\$16.43	\$26.12
16	6	\$18.85	\$30.06
4	6	\$19.88	\$32.61
15	6	\$25.30	\$40.90

<b>Reporting Area Code</b>	<b>n</b>	<b>Mean</b>	<b>Standard Deviation</b>
18	6	\$27.66	\$44.96
6	6	\$28.51	\$45.69
1	6	\$33.24	\$49.45
2	6	\$40.09	\$66.09
<b>Total</b>	156	\$12.55	\$27.15

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